DERMOCHROMES - I

REBMAN

PORTFOLIO

OF

DERMOCHROMES

PORTFOLIO

OF

DERMOCHROMES

BY

JEROME KINGSBURY, M.D.

ATTENDING PHYSICIAN NEW YORK SKIN AND CANCER HOSPITAL; PHYSICIAN FOR DISEASES OF THE SKIN TO THE PRESBYTERIAN HOSPITAL DISPENSARY; MEMBER OF THE AMERICAN DERMATOLOGICAL ASSOCIATION; MEMBER OF THE NEW YORK DERMATOLOGICAL SOCIETY, ETC.

CHAPTERS ON SYPHILIS

BY

WILLIAM GAYNOR STATES, M.D.

ASSISTANT SURGEON NEW YORK POLYCLINIC HOSPITAL; FORMERLY INSTRUCTOR IN GENITO-URINARY AND VENEREAL DISEASES; MEMBER OF THE AMERICAN MEDICAL ASSOCIATION; MEMBER OF STATE AND COUNTY MEDICAL SOCIETY OF NEW YORK, WEST SIDE CLINICAL SOCIETY, ETC.

WITH TWO HUNDRED AND SIXTY-SIX COLORED ILLUSTRATIONS AND SIX HALF-TONE FIGURES

Volume I

NEW YORK

REBMAN COMPANY

HERALD SQUARE BUILDING

141–145 WEST 36TH STREET

PRINTED IN AMERICA

Preface

THIS Portfolio of Dermochromes contains two hundred and sixty-six colored and six black and white illustrations. Of the former two hundred and seventeen appeared in the fourth edition of Jacobi's Atlas, but the remaining forty-nine are now presented for the first time. The black and white illustrations are all new. These represent different types of alopecia and were made from photographs taken for me by Dr. William B. Trimble.

Although many of the plates will be familiar to American physicians, the accompanying text is entirely new. In its preparation the writings of the leading American, British, and Continental dermatologists have been freely consulted, but preference has generally been given to the views of the former, as the work is intended chiefly for readers in this country. I particularly desire to acknowledge manifold obligations to Drs. Bulkley, Duhring, Pusey, and Stelwagon.

The section on syphilis was intrusted to Dr. William Gaynor States, and I greatly appreciate the honor of having his able presentation of this disease incorporated in this work.

To my clinical associates at the New York Skin and Cancer Hospital I am indebted for considerable assistance; to Dr. Paul E. Bechet and Dr. Arthur M. Kane for valuable aid in preparing the manuscript and in passing the work through the press, and to Dr. Binford Throne for the excellent chapters on the exanthemata. I here take pleasure in expressing to them my thanks for their generous cooperation.

The subjects have been grouped, as far as practical, according to generally accepted pathological classifications, and with but few exceptions the nomenclature recommended by the American Dermatological Association has been adhered to in the text.

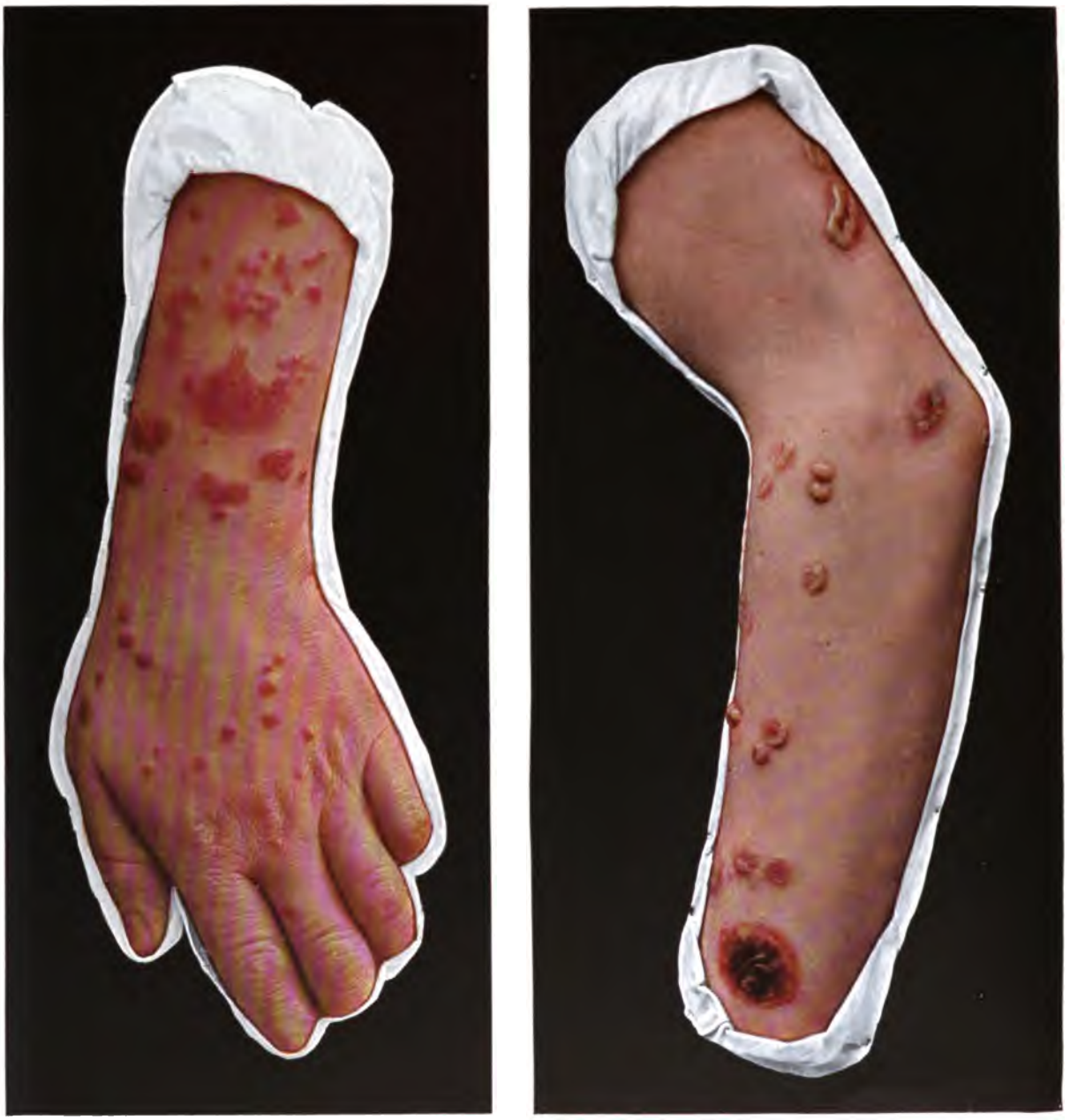
While fully realizing that in a work of this scope individualism is out of place, I must confess that I have not always refrained from the temptation to interject personal impressions and opinions.

JEROME KINGSBURY.

List of Plates

Alphabetical List of Figures

(The Numbers quoted are the pages of the Text on which reference to the Figures is made)



No. 1. 2. Erythema multiforme.

Erythema Multiforme

Plate **1**, FIGS. 1 and 2

Erythema multiforme is an acute dermatosis having certain affinities with urticaria and purpura and hence believed to be essentially angioneurotic in character and dependent on some irritant within the blood which is chiefly of intestinal origin. It differs from an ordinary toxic rash in the large amount of infiltration, and in its appearance in successive crops. While eminently multiforme, in the majority of cases, the lesions are more or less uniform in that there is a predominant type. The affection differs from those which most resemble it in a tendency to appear in certain localities, as the upper extremities below the elbows, the legs and feet and the face. It prefers the exterior surfaces, as a rule. In certain cases the entire surface of the body may be involved, and even some of the adjacent mucous membranes. Unlike most acute eruptions, it gives rise to little subjective discomfort.

A constitutional reaction from the eruption or in association with it seldom occurs, but erythema multiforme may represent a manifestation of some general infection which is akin to acute rheumatism. In occasional cases there is serious organic disease of the abdominal organs. These modes of behavior make it appear probable that the affection is a syndrome and not an actual disease.

The commonest form is a papular efflorescence, the lesions of which do not exceed the size of a large pea. The papules may be discrete or aggregated. Less common are tubercles which are considerably larger and accompany the smaller lesions. All these lesions tend to flatten and broaden and leave a depression, so that a ring may be formed. The color, a dark vinous red, is almost characteristic. Sometimes rings of considerable size are formed, and segments of rings may be combined to form certain patterns; or one ring may form within another. In severe cases a papule or tubercle may have a vesicular centre. Aside from this there is a typical vesicular form known as erythema iris

Erythema Iris

Synonym: Herpes iris

Plate **2,** Figs. 3 and 4

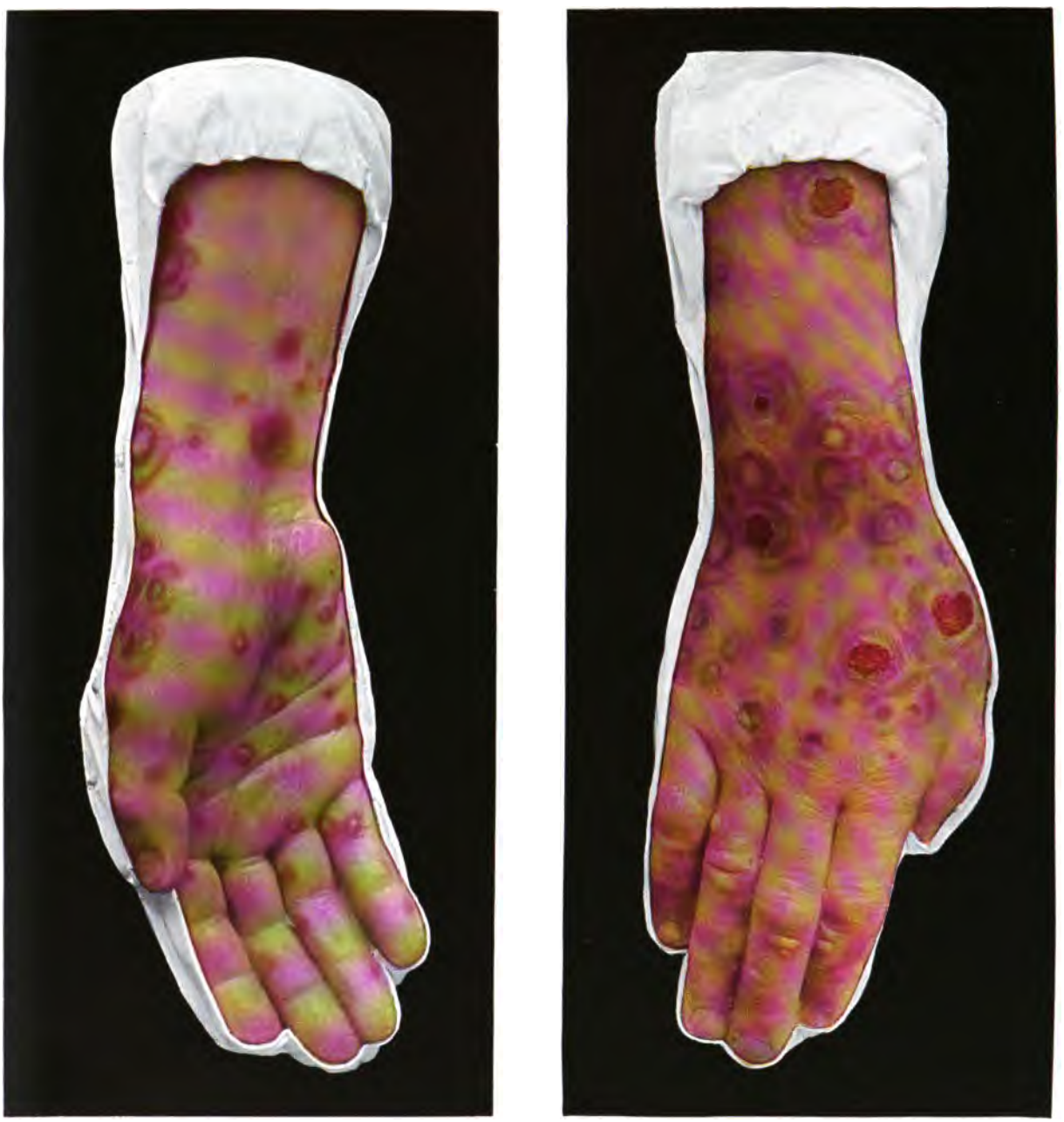
Whether this eruption is a simple clinical variety of erythema multiforme or a distinct affection affiliated with it, was formerly a vexed question, but at present authorities seem to have decided upon the virtual identity of the two. There may, however, be as good reasons for the dualistic view in the case of erythema iris as in erythema nodosum.

In erythema iris we see a particular type of erythema, attended in the great majority of cases with vesiculation; so that the former may be regarded as an abortive phase. In other forms of erythema multiforme vesiculation is exceptional. The process of vesiculation in erythema iris also resembles that of true herpes, for the vesicles appear promptly and with the same stinging sensation. Moreover, it is sometimes seen in association with herpes facialis and herpes progenitalis.

Erythema iris consists of concentric rings of erythema, which, like other lesions, run their course rapidly, and since the rings appear in succession, exhibit different shades of color suggestive of the deeper hues of the rainbow—bright red, purple and violet, the older rings being of the latter shades. In this process the new rings form outside of the old ones, developing from a red areola; and the number may vary from two to six. As already stated, the process of vesiculation begins early, within twelve hours, so that lesions of different degrees of development appear side by side. From the formation of concentric rings, large patches are formed and may coalesce.

The vesicles are essentially small but coalesce in the rings, and exceptionally the central vesicle may form a bulla of variable size with which the outside vesicles may coalesce. The vesicles last about a week and disappear by absorption.

The distribution of erythema iris agrees with that of erythema mul-



No. 3. 4. Erythema Iris.

tiforme in every respect in both typical and exceptional cases, and the treatment presents no peculiarities, save that large bullæ may require evacuation.

Fig. 3. Model in Neisser's Clinic in Breslau (*Kroener*).

Fig. 4. Model in Neisser's Clinic in Breslau (*Kroener*). A repeatedly recurrent vesicular eruption in a tailoress, twenty-five years of age, with high fever and joint symptoms.

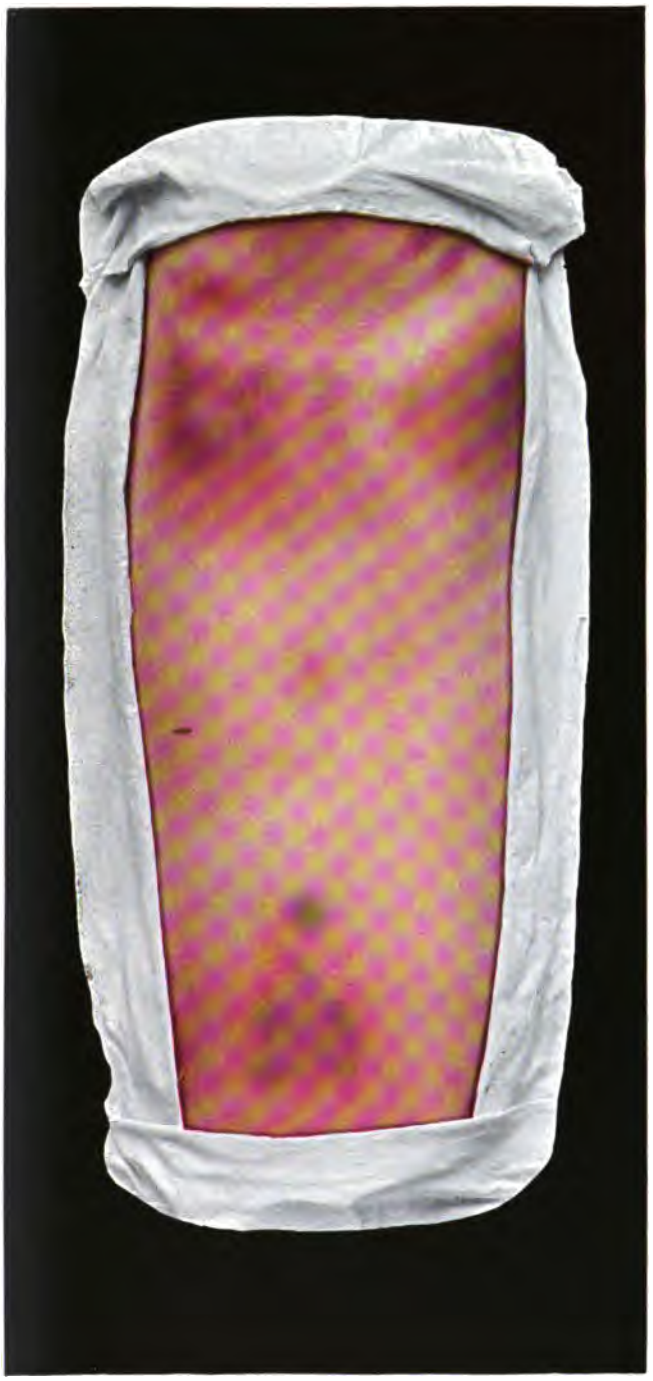
Erythema Nodosum

Synonyms: Dermatitis contusiformis. (Fr.) Erythème nouveux

Plate **3,** Fig. 5

This affection is in many respects very closely related to erythema multiforme. It possesses, however, features particularly its own, thus affording a convenient excuse to describe it as a separate disease.

In most text-books it is referred to as an affection of childhood and adolescence, but adults are by no means immune, and I can recall, from my own practice, a typical case that occurred in a woman sixty years of age. For some unknown reason the disease is very much more common in females than in males. The characteristic lesions of erythema nodosum consist of more or less elevated node-like swellings. These occur most commonly over the shins, and as a rule both legs are affected. The nodes have no well-defined border, and in size they vary from that of a hazel-nut to a mass sometimes as large as a hen's egg. They are generally oval in shape, and their long axis corresponds to that of the limb. The color is at first bright red, but soon blue and then purplish tints appear, and as absorption progresses, it gradually fades to a yellowish hue, and at this time the lesions resemble bruises; this explains one of the titles that has been given to this affection by some authors (dermatitis contusiformis). The swellings when they first appear are hard and tense, but they become softer as the inflammation subsides. At times a sensation of fluctuation is obtained, but the lesions never suppurate. Nodes not infrequently occur on the flexor surface of the legs and occasionally on the thighs, buttocks, and forearms. The individual nodes last about two weeks, but new lesions sometimes continue to appear, even in cases that are under treatment, and the duration of an attack ranges from three to six weeks. When the nodes first appear, they are generally preceded and accompanied by a greater or less degree of constitutional disturbance. At times there are symptoms referable to derangements of the gastro-intestinal tract, but the most constant concomitant symptoms are those of acute



No. 5. Erythema nodosum.

No. 6. Purpura haemorrhagica.

articular rheumatism of the extremities, the lower being more frequently affected.

Etiology

Erythema nodosum is so frequently associated with definite rheumatic symptoms, that it is now very generally looked upon as an expression of rheumatism.

Diagnosis

This is seldom difficult, but at times the resemblance of inflamed syphilitic gummata to the lesions of erythema nodosum is quite marked. In syphilis, however, the development of the lesions is more indolent, their number less, and they are not likely to be accompanied by constitutional symptoms. In complicated cases the Wassermann or the Noguchi reaction should be of considerable assistance.

Occasionally cases of erythema induratum are confused with those of erythema nodosum, but the former affection is a more chronic one, the lesions are much smaller, are generally found on the calf of the leg, and even in comparatively recent cases there is generally either ulceration or evidence of beginning central necrosis. In erythema induratum a positive tuberculine reaction is invariably obtained.

Prognosis

This is favorable as far as the disappearance of the lesions is concerned, but their development should be looked upon not only as an evidence of rheumatism but of impaired vitality as well, and the possibility of an already existing endocarditis should be ascertained.

Treatment

If the swellings are very painful and the rheumatic symptoms severe, it is advisable to have the patient remain in bed for a few days or a week. Although desirable, this is seldom absolutely necessary. The diet, however, should be restrictive, especially so if the febrile symptoms are at all marked. In adults the bowels should be well moved by calomel, followed by the usual saline, but with children a dose of castor oil may be substituted. Although some observers have questioned its rheumatic relationship, it is a clinical fact that in erythema nodosum better results are obtained with antirheumatic medication than with any other.

In mild cases, three to eight grains of aspirin or salicin in capsules may be given three or four times a day, but in cases where the rheu-

matic symptoms are well defined it is better to administer full doses of the salicylate of soda, preferably in a mixture. The following formula is most efficacious:

℞ Potassii acetatis	.....	ʒiii
Sodii salicylatis	.....	ʒiv
Tinct. nuc. vomicæ	.....	ʒii
Syr. zingiber	.....*ad*	℥iii

M. et ft. mist.
Signa ʒi in water after meals.

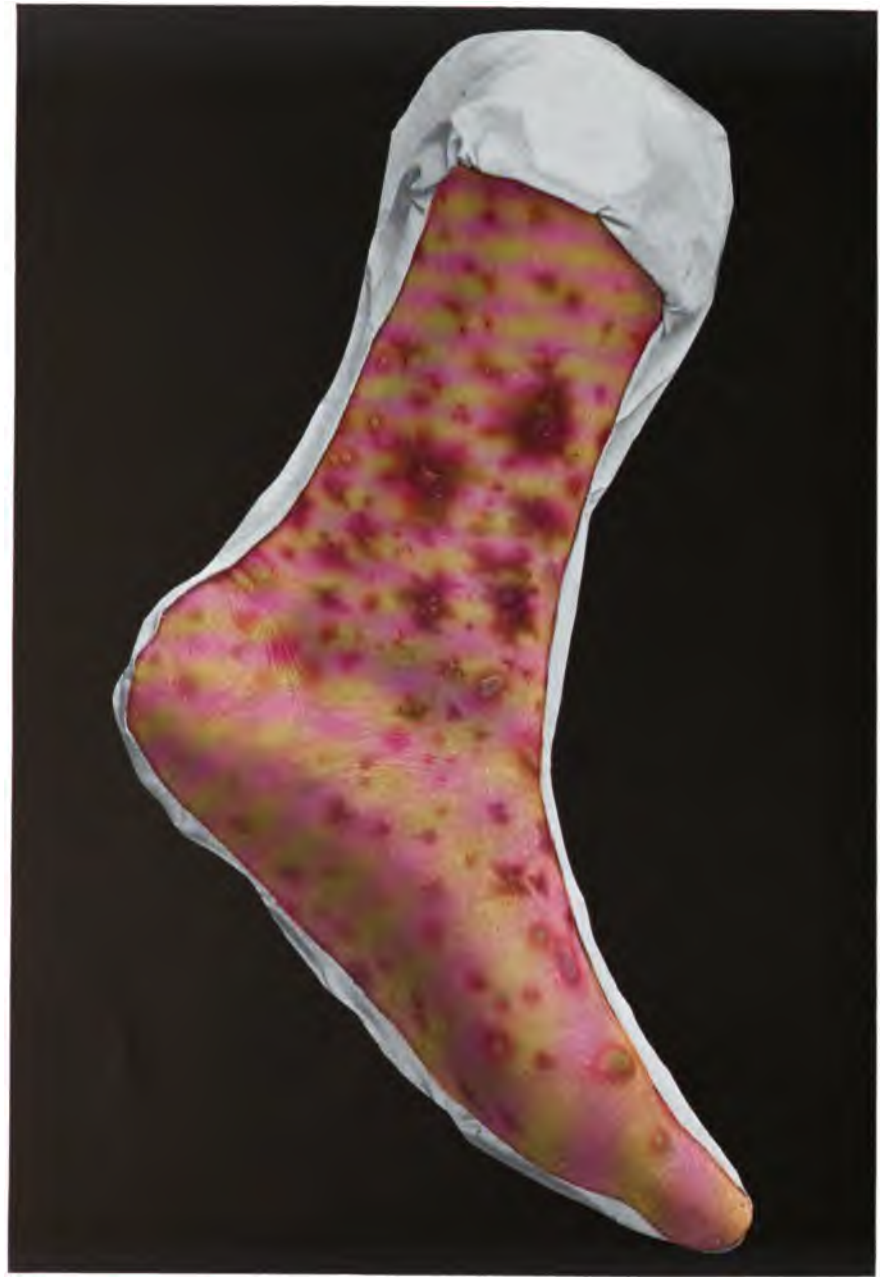
After the swellings have disappeared, tonic doses of quinine may be given. For the anæmia that is so frequently present iron and arsenic is indicated. The following is a valuable mixture:

℞ Ferri et ammon. citrat	.....	ʒii
Liq. potassii arsenitis	.....	ʒi
Liq. potassæ	.....	ʒiss.
Vini ferri dulcis	.....*ad*	℥iii

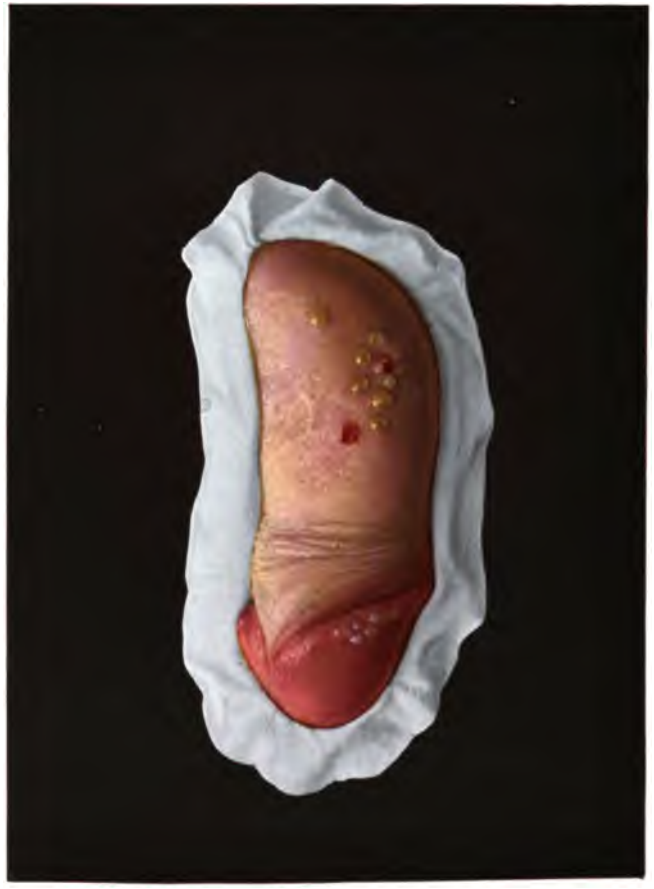
M. et ft. mist.
Signa ʒi in water after meals.

Local applications are seldom necessary, but in the acute stage if the nodes are particularly painful relief may be obtained from compresses of ice, cold water, or of lead and opium wash.

Fig. 5. Model in Lesser's Clinic in Berlin (*Kolbow*). Woman, thirty-six years old, without joint symptoms, treated as an out-patient.



No. 7. Purpura haemorrhagica.



No. 8. Herpes progenitalis.

Purpura Hemorrhagica

Plate **3**, Fig. 6; and *Plate* **4**, Fig. 7

This affection is an unsatisfactory one to discuss because purpura is a generic term for all hemorrhages of the skin, and thus in a sense all purpura is hemorrhagic. The term was originally applied to morbus maculosus Werlhofii or land scurvy, an affection long believed to be sui generis and to exhibit no lesions other than hemorrhages into the skin, mucosæ and often in the viscera; in other words, an idiopathic acute or chronic hemorrhagic diathesis or acquired hemophilia. In recent times good authorities have insisted that the condition is only an intensive form of purpura simplex, while others appear to believe that there is no form of purpura which may not develop into the affection in question, and the latter may appear as an equivalent of other clinical forms of purpura.

In some cases a constitutional reaction of malaise, fever, rheumatoid pains, gastro-enteric disturbances, etc., precedes the hemorrhages, but the more marked are these the more certain it seems that the disease in the special case is essentially one of the ordinary eruptive forms of purpura. Prodromes do not seem essential to the development of the disease and the earliest symptoms may be directly dependent upon the loss of blood. The eruption appears on the trunk and limbs and at times upon the face, which latter location is regarded by some as pathognomonic of purpura hemorrhagica, as is also the occurrence of hemorrhages in the visible mucosæ. A fact of importance in purpura hemorrhagica which may assist to some extent in differentiating it from minor forms is the semitraumatic character of the lesions.

The eruption may comprise every type of hemorrhagic cutaneous lesion from petechiæ to ecchymomata. The typical lesion is probably a large, flat extravasation or ecchymosis.

A patient with purpura hemorrhagica may present symptoms associated with the exciting causes when these are markedly in evidence, and also others due to loss of blood, such as pallor and prostration. The disease may run a brief and benign course, recovery ensuing within a fortnight, or a sort of status may be established in which

hemorrhages recur and the condition may then be termed chronic or at least subacute. The very acute, fatal cases in which death occurs from internal hemorrhages have sometimes begun as relatively mild purpura.

Etiology

The chief point of interest in this connection is the nature of the factors which cause this severe degree of purpura. The latter has often been noted in a relatively pure form in syphilis, tuberculosis, nephritis, influenza, etc., differing essentially from the hemorrhages which depend directly on the exanthemas of variola, scarlatina, etc. Of vital significance especially in cumulative incidence is the possibility of a dietetic factor—insufficient nutriment with especial reference to potash.

Cases of so-called "land scurvy" occurring in pseudo epidemics are still reported from time to time, and usually recover as soon as the diet is regulated.

The pathology is of the simplest, yet quite obscure in essence. The blood-vessels and blood seem both at fault. The former permit diapedesis and also readily rupture. The blood which escapes shows delayed coagulation. The absorption of the extravasated blood occurs more slowly than in traumatic cases.

Diagnosis

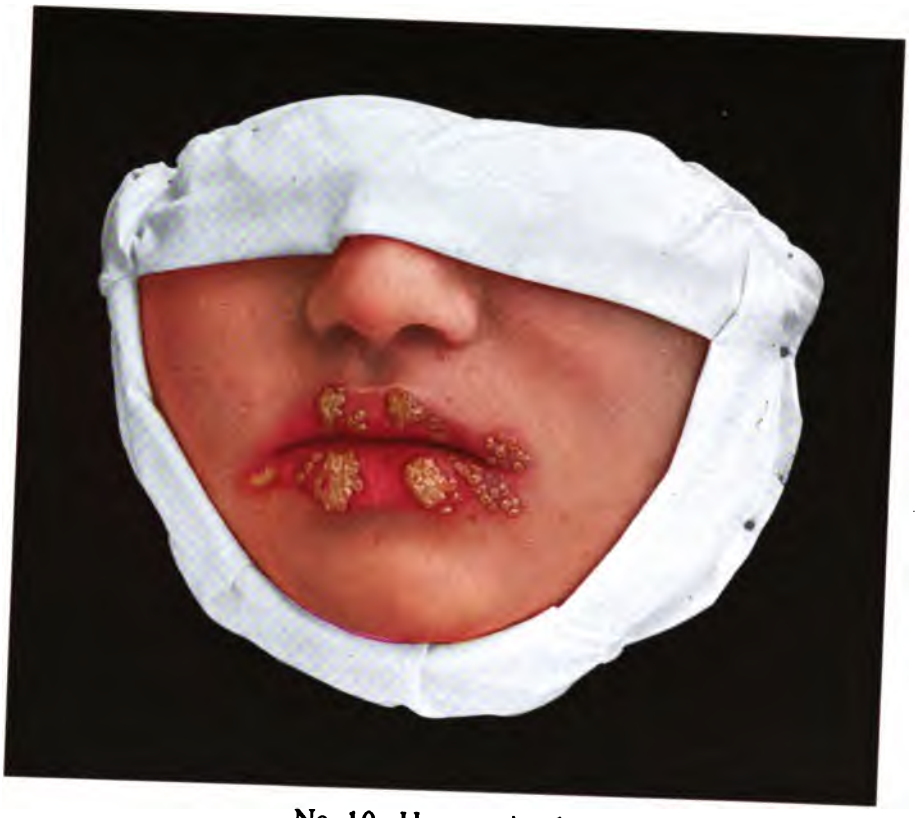
The implication of the mucosæ and face, as well as evidences of internal hemorrhage will serve to differentiate purpura hemorrhagica from the more common and comparatively benign forms of purpura.

Treatment

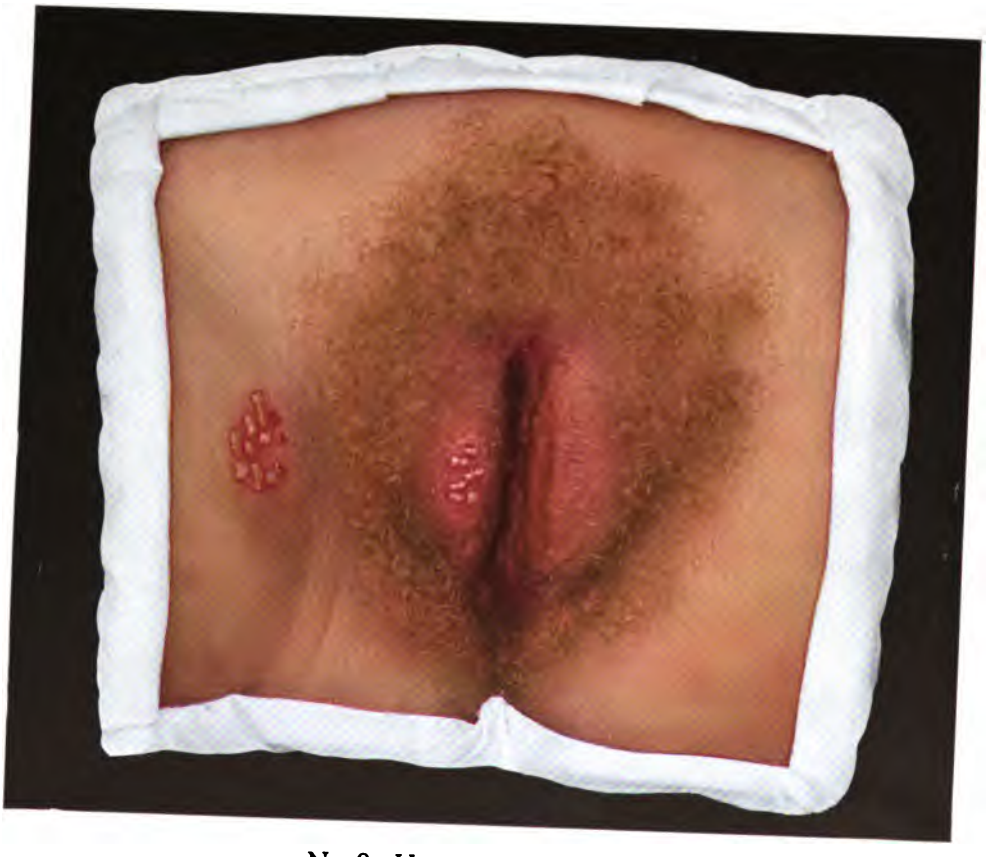
The general management consists essentially in the use of hemostatic remedies, as rest in bed with foot of same elevated, cold applications and the internal administration of ergot and adrenalin. Roller bandages on the legs may prevent further extravasations. If several cases develop in a small community or house, the diet should be carefully considered as to the content of the food in potash. For the debility following an attack the patient should be put on a generous diet of meat and fresh vegetables, with wine. Iron, quinine, and strychnine in suitable doses will also help to restore the saline ingredients of the blood. Recently subcutaneous injections of human blood serum have been employed with good results.

Fig. 6. Model in Vienna Clinic (*Henning*). Many intra- and subcutaneous hemorrhages. Skin shows icteric purpuric spots.

Fig. 7. Model in Neisser's Clinic in Breslau (*Kroener*).



No. 10. Herpes simplex.



No. 9. Herpes progenitalis.

Herpes Progenitalis

Synonyms: Herpes preputialis; Herpes genitalis

Plate **4,** Fig. 8; and *Plate* **5,** Fig. 9

The above affection possesses an unusual degree of interest because its consideration belongs alike to the dermatologist and genito-urinary surgeon. It may follow coitus (as a result of mechanical irritation) and it frequently serves as a port of entry for the virus of syphilis. It is also prone to develop in male subjects who have had gonorrhea, apparently as the result of irritating pathological conditions in the urethra, vesicles, or prostate. Herpes progenitalis is eminently a relapsing affection. One attack may be succeeded almost immediately by another.

In the male the little clusters of vesicles appear either on the inner aspect of the prepuce and the glans, or on the integument of the penis. In the latter case a typical cluster of vesicles is evident as in Fig. 8. These behave exactly like herpes on the face and the nature of the group of shiny vesicles is manifest. On a patient with no prepuce, or only a short one, the mucosa resembles skin and the vesicles behave in the same manner, but in subjects with long foreskins the vesicles occurring on the glans are quickly ruptured and the clinical appearance is more that of a balanitis. As a rule it is not easy to recognize the site of the vesicles in these cases, owing to the edema and retained secretion that is often present.

We know comparatively little about genital herpes in women and authorities differ as to its frequency. The labia minora and clitoris are the parts most frequently affected although the eruption often occurs on the labia majora and adjacent integument, as shown in Fig. 9. In certain cases the vesicles enlarge to a considerable size and show a yellowish floor suggestive of a chancroid. These enlarged vesicles may also coalesce, so that a large eroded surface results. There is an offensive discharge and the itching and burning is often

intense. The inguinal glands are frequently enlarged and walking becomes difficult.

Diagnosis

This should not be difficult in an uncomplicated case but when the vesicles have been ruptured and suppuration has taken place it is not always easy to exclude a chancroid. The latter, however, will generally show deeper ulceration and a fouler base. Time and treatment will also help to clear the question. An attack of herpes is usually cured in a few days by the use of mild antiseptic applications, whereas a chancroid under the same treatment would increase in size. Autoinoculation of a chancroid is seldom justified, but pus may be scraped from the border of the ulcer, fixed and stained, and in the case of a chancroid the microscope will show the characteristic bacillus of Ducrey.

Primary syphilis should be readily excluded by the clinical history, the absence of induration, and by a negative laboratory report as to the presence of the spirocheta pallida.

A simple balanitis often resembles the condition seen in herpes of the prepuce after the vesicles have ruptured, but in the former affection there is no history of the presence of previous vesicles. A diabetic balanitis is easily excluded by examination of the urine for glucose.

Local Treatment

The treatment of the lesions of herpes progenitalis is usually as efficacious as it is simple. Few cases fail to respond to cleanliness and mild antiseptic dusting powders. In male patients the prepuce should be retracted and the glans and contiguous mucous membrane cleaned with a weak boric acid solution and an application of aristol made over the vesicles. If there is infection or ruptured vesicles, it is well to use a 50% solution of hydrogen peroxide before applying the aristol. Other powders that may prove efficient are acetanilid, calomel, subnitrate of bismuth, and oxide of zinc. A redundant prepuce should be separated from the glans by a strip of gauze or pledget of cotton. If there be much edema the patient should be instructed to hold the penis in a cup of warm water for several minutes, two or three times a day. To hasten the healing of ruptured vesicles, the use of an astringent wash is often beneficial. Powdered alum, gr. xx to gr. xxx to the ounce of water, makes a very good one. For superficial ulcerations the silver nitrate stick may be used.

Prophylaxis

Under this caption may be considered treatment designed to prevent the regular or irregular recurrence of the affection.

First of all, the general health, which in these patients is nearly always lowered, should be improved. Tonics containing iron, quinia, and strychnia are often beneficial and in certain chronic cases arsenic has proved of distinct value. Errors of diet should be corrected and careful attention given to gastric and intestinal derangements. Alcoholic and fermentative liquors, as well as tobacco, generally act prejudicially.

Patients should be thoroughly instructed in sexual hygiene as the congestion of the genital organs following prolonged sexual excitement is often a prominent factor in the causation of this affection. While it is advisable to have a long tight foreskin removed it must be borne in mind that circumcision does not always prevent recurrent attacks. Some of the most rebellious cases that I have had under observation occurred in individuals who had been circumcised in early infancy. In some cases benefit follows the regular passage of cold sounds and instillations of argyrol. One phase of the prophylactic treatment that is rarely spoken of in text-books is the treatment of pathological conditions of the seminal vesicles. A number of my cases apparently depended upon a chronic catarrhal inflammation of the vesicles and treatment directed to the vesiculitis caused a cessation of attacks after numerous other forms of treatment had failed.

Fig. 8. Model in St. Louis Hospital in Paris, No. 1923 (*Baretta*). Fournier's case.

Fig. 9. Model in Dermatological Clinic in Freiburg (*Vogelbacher*).

Herpes Simplex

Synonyms: Herpes facialis, Herpes labialis

Plate **5**, Fig. 10

Strictly speaking, genital herpes belongs in this category, but for practical reasons it is better to regard it as a distinct affection. Herpes simplex may occur in almost any locality as the result of a possible nerve injury or irritation. In practice, however, the affection is limited to the face—chiefly about the lips and outlying skin. Occurring at the junction of the skin and mucous membrane at the mouth or nostril it is the familiar "cold sore," which accompanies an acute coryza. These forms are extremely common, and are limited, as a rule, to a single small cluster of vesicles. Herpes facialis, so called, is a cutaneous eruption, not necessarily limited to one area, but able to involve a large portion of the face. It is usually associated with acute affections like pneumonia and influenza, the "fever blisters" of the laity, and is not, as has sometimes been thought, any criterion of the severity of the disease. The lesions are composed of clusters of vesicles, the numbers of both vesicles and clusters varying. The clusters are usually grouped together, forming large patches. The vesicles appear on a slightly hyperemic base and are nearly always attended with pricking sensations and soreness. They are naturally minute, but may attain considerable size as if from coalescence (hence the popular word blister). The liquid contents are absorbed or become desiccated, and a discharge never occurs. The disease runs a definite course, lasting a week or ten days, at the close of which period a scab is detached. There is considerable tendency to recurrence in the same area; in fact, in the minor forms one attack appears to predispose to others. The peculiar nervous sensations, the character of the little vesicles and the occasional association of slight irritation—for example, the irritation of the nostril and upper lip at the outset of a cold—show plainly a nerve element in the make up of the affection—reflex or ganglionic.

Diagnosis

Extensive facial herpes with much crusting may have to be distinguished from other facial eruptions—eczema and impetigo—but this should not be difficult.

Treatment

The frequent application of spirits of camphor to the lesions will relieve the burning and hasten their disappearance. When the crusting stage is reached ointments are indicated. The following is a good one, particularly for herpes labialis:

℞ Tinct. camphor	♏vii
Pulv. calamine prep.	gr. v
Zinci oxidi	gr. vii
Aquæ rosæ	ʒii

M. et ft. ungt.

In the troublesome, periodic form Norman Walker recommends the painting of the affected area with argent. nitralis (gr. xx) spr. æther. nitrosi (ʒi). This he believes will often increase the intervals between attacks, and will in time bring about a cure.

Fig. 10. Model in Dermatological Clinic in Freiburg (*Vogelbacher*).

Herpes Zoster

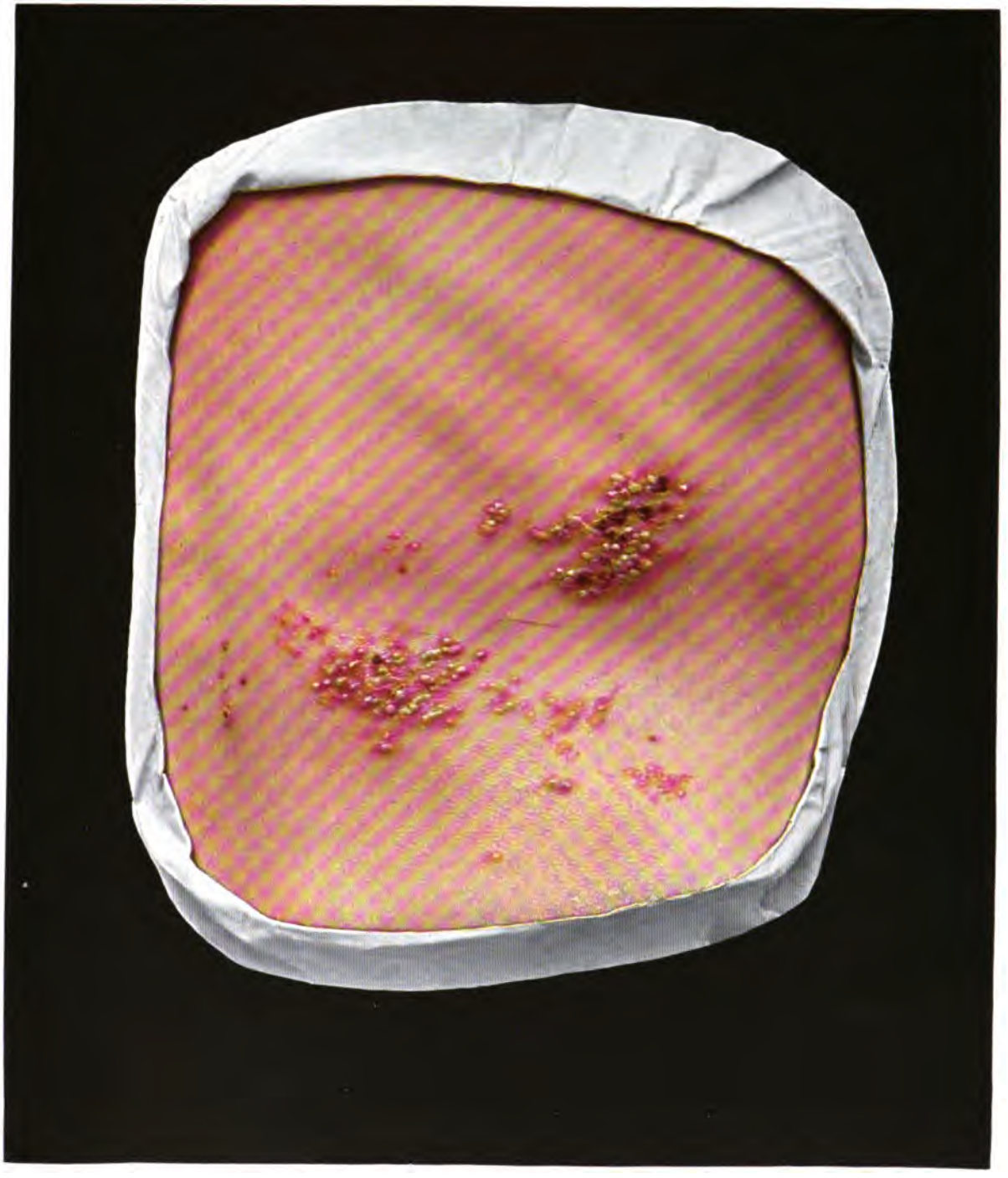
Synonyms: Shingles, Zona

Plate **6,** FIG. 11; and *Plate* **7,** FIG. 12

Herpes zoster differs from all other acute affections of the skin in that it is a secondary manifestation, due to an acute inflammation of the nerve fibers which are distributed in the affected area. There are few cutaneous affections of which the mechanism is so simple, even if the ultimate causal factors are obscure. The disease has points in common with herpes simplex, in which the terminal nerve-filaments are doubtless involved, but not the main nerve-trunks. In both herpes simplex and progenitalis, clusters of vesicles arise rapidly on a hyperemic base with unpleasant tingling and pricking sensations; but in zoster the pain may be extreme—neuralgiform—and is associated often with intense hyperesthesia. In some cases the pain antedates the eruption by several days. Like simple herpes, zoster runs a definite course and is self-limited. The eruption requires about two days for its evolution, and on an average a week elapses before it begins to subside. The vesicles, as in herpes simplex, do not rupture and dry into scabs. Unlike the former they may leave permanent scars.

Although herpes zoster is almost necessarily unilateral, bilateral cases have occurred. In the great majority of cases the affection occurs on the trunk or region of the eye. The areas that may be involved vary greatly in extent. In zoster of the ear, an affection not much discussed by dermatologists, a few vesicles only may suffice for the expression of the disease. Conversely in zoster of a lower extremity the area affected may be very extensive. Differences also occur based on the severity of the case. Thus in a given area there may be only a few vesicles localized at one point or the entire area may be the seat of clusters.

Zoster of the face and head seems more severe than elsewhere, because for some reason acute trophic lesions may accompany the ordinary phenomena. Naturally in zoster involving the eyeball a few



No. 11. Herpes zoster.

7

vesicles on the cornea may result in opacities; but there is added a certain pernicious quality to the eruption by reason of which the eyeball may be destroyed. Deep scars often remain on the forehead, due perhaps in part to diminished resistance of the tissues. For the same reason the vesicles may become infected, and as a result of thrombophlebitis fatal intracranial mischief may be set up.

Zoster affecting the face may be accompanied by vesicles on the mucous membranes and trophic alterations in the teeth. Contrary to what one would expect, the motor component is almost negligible in zoster. Cases of paralysis, some permanent, have been recorded; also isolated cases of spasm.

Etiology

It has been conclusively demonstrated by Head that the affection is due to a hemorrhage or other pathological change in a posterior spinal ganglion and that with almost unfailing regularity the location of the eruption is determined by the cutaneous distribution of the nerve-fibres that pass through the affected ganglion. In regard to the factors which determine the nerve-lesion, these seem to be legion. The most important appears to be a specific communicable virus which often causes small epidermics. In this type of zoster we see malaise, fever and other phenomena observed in acute infectious diseases. Generally speaking, any circulating poison in the blood, any form of reflex irritation and traumatic influences (as in herpes simplex) may be able to produce zoster; whence some would distinguish between true zoster and zosteroid eruptions. Well recognized individual causes are arsenic (it frequently follows injections of salvarsan), carbon monoxide, and malaria. It is not uncommon in tuberculosis. The evidence in support of reflex causation seems weakest.

Diagnosis

The earliest vesicles of zoster, associated as they usually are with pricking sensations, are sometimes mistaken for local effects of bites or other traumatism. Typical herpes zoster should hardly be confounded with any other eruption because of its unilateral distribution and peculiar subjective sensations. Zoster on the face may of course be confused with herpes facialis and conditions resembling it. In severe cases, however, it would be more likely to suggest erysipelas. The latter, however, has constitutional symptoms, is bilateral, infiltrated, and has the characteristic sharply defined margin. Zoster may run an abortive course and these cases are sometimes misleading.

Prognosis

Certain features of zoster may bring up the question of prognosis, although generally speaking a mild self-limited affection can have but one prognosis. If the affection occurs in connection with a neuritis or neuralgia the pain may persist and even increase. The pitting about the face and head may be deep, and the practitioner may well be on his guard in calling the affection a trifling one. This obtains even more strongly in zoster ophthalmicus, in which the cornea may be rendered opaque with resulting blindness. The fact must not be lost sight of that zoster has been known to end in gangrene.

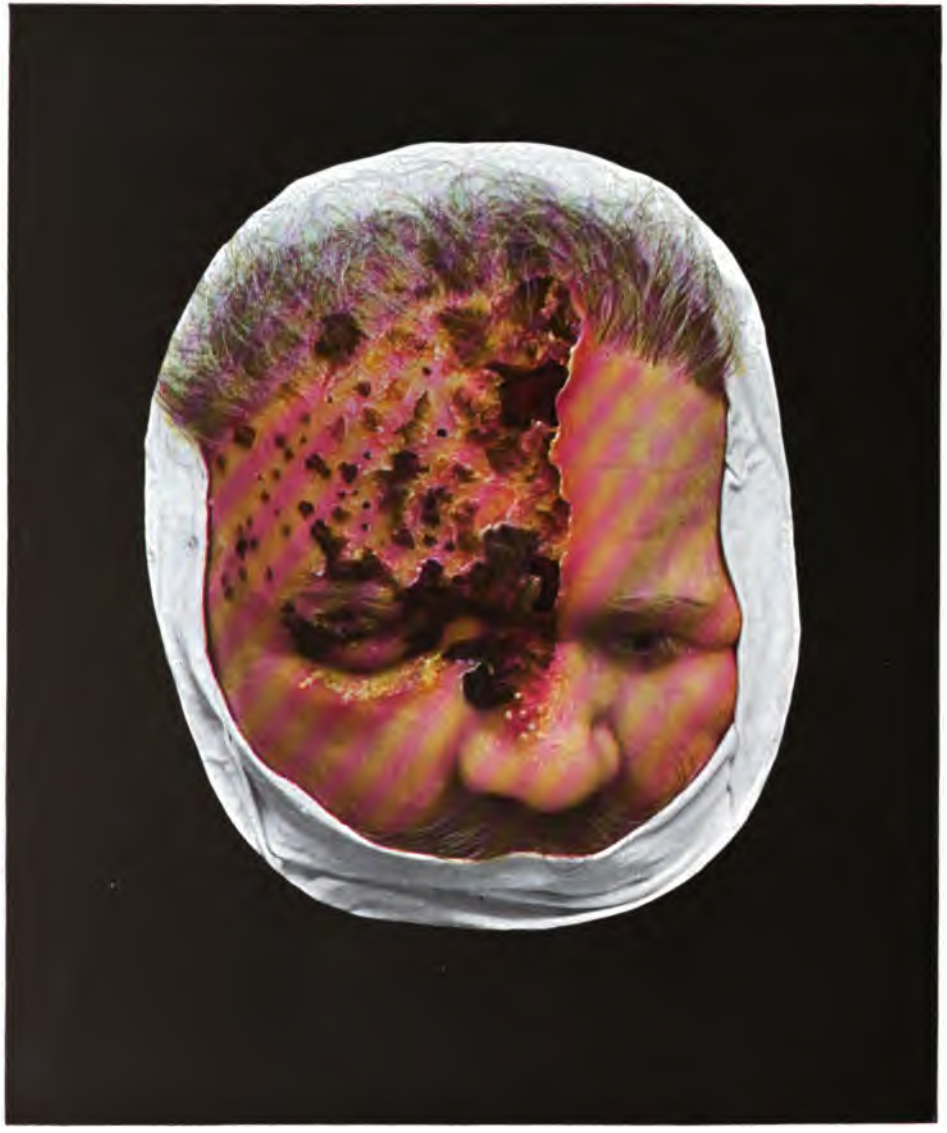
Treatment

Some authors, who evidently confound the predisposition with the actual disease, advise the general regimen for neuralgia, such as nerve tonics (arsenic, iron, quinia), coupled with change of climate necessary for all gouty and malarial subjects. Since zoster seldom recurs, it is difficult to understand how this regimen could influence an acute self-limited affection. We can only interpret this management as something directed to the underlying condition of which the disease is a transient expression.

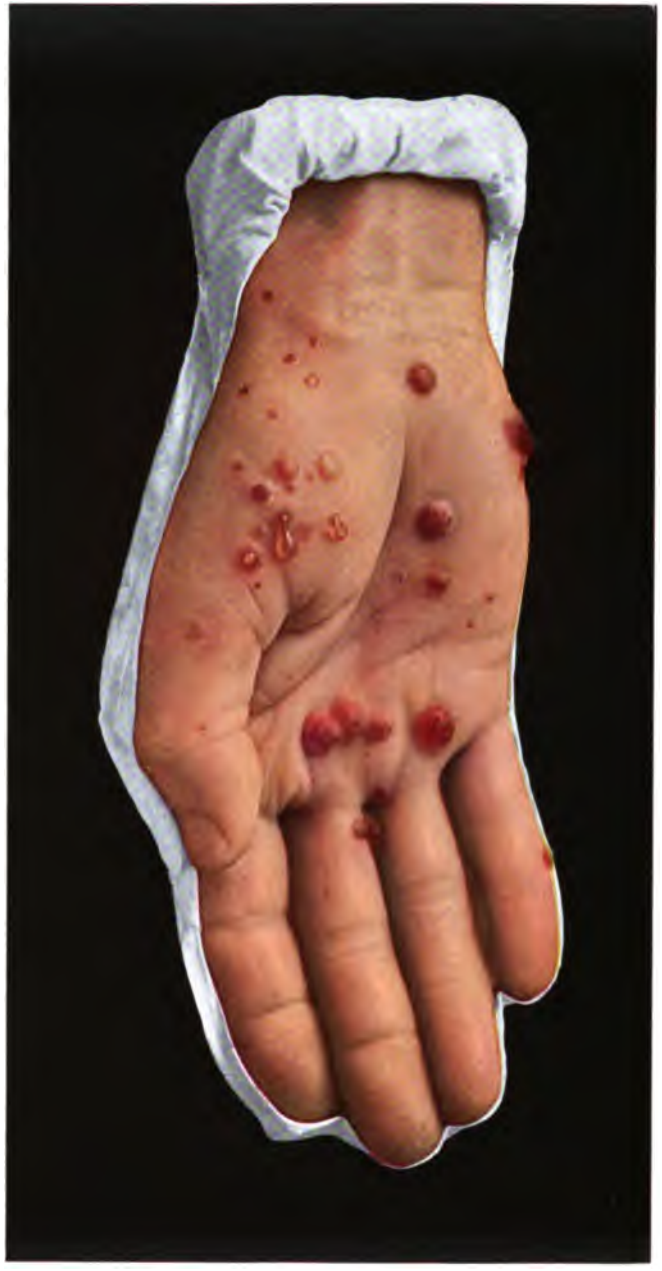
The pain may be the chief cause of the patient's visit, and as pain is almost always in evidence the practitioner should be prepared to mitigate it. Among anodynes a hypodermic of morphine close to the area involved is usually effective, but satisfactory results may often be attained by the use of acetanilid or phenacetin. A remedy upheld for many years is galvanism along the affected nerve to the extent of five milliampères with a ten-minute exposure. Measures well spoken of are blisters over the part of the spine at the point of exit of the sensory nerve, and mild freezing, with ethyl chloride or dry cupping, at the same point. Of the numerous local applications recommended, not much is to be expected; they may all be summed up under protection and immobilization, which may be effected by dusting the area heavily with talcum powder and then applying a tight bandage, the inside of which is also thickly coated with the same powder. Such a dressing, which need be changed but once, will usually suffice for the local treatment of an ordinary case. Care should be taken not to rupture the vesicles so as to prevent the possibility of infection with subsequent scars.

Fig. 11. Model in Neisser's Clinic in Breslau (*Kroener*).

Fig. 12. Model in Lesser's Clinic in Berlin (*Kolbow*).



No. 12. Herpes zoster gangraenosus.



No. 13. Dyridrosis.

Pompholyx

Synonyms: Dysidrosis, Cheiro-pompholyx

Plate 7, Fig. 13

This is a purely topical affection, limited to the extremities and chiefly the palmar and plantar aspects. The fingers are commonly involved, and the eruption is usually symmetrical. The lesions consist of vesicles and bullæ, the latter resulting from distention and coalescence of the former. These lesions tend to appear in clusters, and are quite deeply seated, so that they have been compared to boiled sago grains. If not too crowded, there may be no coalescence to form bullæ, and the enlarged vesicles may disappear from absorption of their contents. If absorption does not occur, the contents become cloudy and at times purulent; when coalescence takes place actual bullæ may form or the entire epidermis may exfoliate. The eruptions appear in crops or more or less continuously, and after a variable interval, perhaps of several months, spontaneous recovery occurs. The affected parts usually show poor circulation and excessive perspiration, and the eruption is usually attended with burning and itching. There is more or less absence of type, so that cases show considerable individuality. There is some reason to believe that abortive forms, limited to a few transitory vesicles, may not be as rare as the disease itself is believed to be.

Etiology

The earliest observers had no doubt that the affection represented a disorder of the sweat-glands and that the vesicles were simply retained perspiration—whence the name dysidrosis. This error—for an error it was—was most natural, for the affection is limited to areas where the sweat-glands are both large and numerous, and the patients, as a rule, showed habitual hyperidrosis of the extremities. That the lesions are not mere retention cysts containing sweat was soon made evident. This fluid is pure blood serum, and pompholyx, while not strongly re-

sembling a weeping eczema, is more closely allied to it than to any other known affection. Little is known of the cause; but the disease is common in women during the reproductive cycle, and nervous and psychic influences are often in evidence in relation to an attack.

Diagnosis

Since pompholyx is a local affection limited to certain areas, diagnosis should not be difficult. The indirect method of exclusion may be necessary in certain atypical cases. The only affections which might cause confusion are acute vesicular eczema and certain forms of localized dermatitis venenata, notably ivy poisoning. Some confusion has arisen in past years between pompholyx and pemphigus; this is due to the common bullous character and similarity in sound of the names—also perhaps to the fact that pemphigus is sometimes located on the extremities. The two conditions, however, should never occasion any confusion in practice.

Prognosis

A case of dysidrosis is often tedious, but the individual attack will undergo involution sooner or later. The unfavorable element is connected with recurrence, which is likely to occur under precisely those conditions which cannot be foreseen or prevented.

Treatment

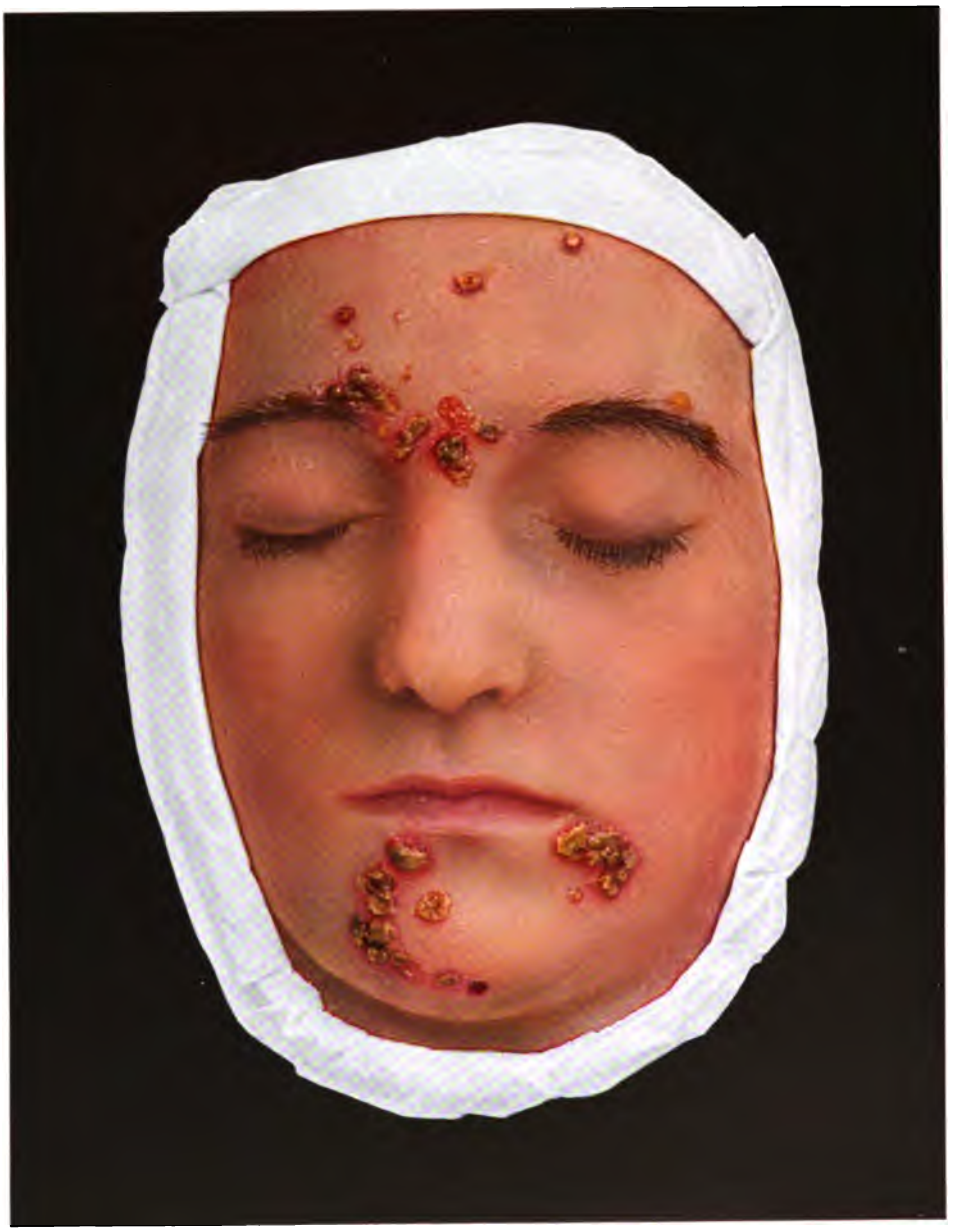
The best results, both in arresting an attack and preventing a recurrence, will come about through internal medication. Arsenic frequently appears to have considerable control over the eruption, and arrests its development. Other drugs of value are iron, quinia, strychnia, and the hypophosphites. The external applications should consist of soothing and drying applications. Relief is generally afforded by Lassar's paste or by Hebra's diachylon ointment. Here is the formula of the latter:

℞ Olei olivarum optimi ..... ℥v
Plumbi oxidi ..... ℥i
Olei lavandulæ ..... ℈ii

M. et ft. ungt.

Lotions of calamine and zinc and of lead and opium are also useful.

Fig. 18. Model in Neisser's Clinic in Breslau (*Kroener*).



No. 14. Impetigo contagiosa.

Impetigo Contagiosa

Plate 8, Fig. 14

This affection, highly contagious, often disfiguring and well calculated to cause alarm, is, in reality, a very benign, superficial malady, which would demand but little attention were it not so liable to confusion with other and much more serious dermatoses. It yields to the simplest treatment, and even if left to itself would recover within a comparatively short time, despite the fact that it is autoinoculable, and that many of its lesions doubtless originate in this manner. The name impetigo is a decided misnomer, as this implies that the affection is essentially pustular. As a matter of fact the essential lesions are vesicles and bullæ, the contents of which quickly become turbid from leucocytes; so that when rupture occurs and the fluid evaporates, thin crusts are formed which adhere rather closely to the skin. These, when detached, show a slightly reddened integument, which exhibits a slight tendency to ooze at the sites of the original vesicles or bullæ. While this affection may occur in a typical form, and spontaneously, we also see cases in which it apparently complicates some other affection in which scratching and abrasions are features. It is not uncommonly determined by vaccination; and in pediculi capitis in children it is so closely associated by authors with the vesiculo-pustular outbreaks on the neck, etc., that some have gone so far as to state that pediculosis is one of the most common causes of impetigo contagiosa. In ordinary cases of the latter they would always look for pediculi. A point not sufficiently discussed is the relation of impetigo to scabies. Some claim that the frequent location of the affection about the lips and nostrils may have some bearing on the secondary infection of a herpes simplex. It will thus be seen that impetigo may behave as a primary or secondary affection.

It is commonly stated that impetigo contagiosa is due to ordinary pus exciters—staphylo- and especially streptococci. It is interesting

to note that the secretions of these lesions are being continually inoculated, but that local and general infection never appear to develop even in abortive forms. In some cases, however, where the outbreak is extensive, we note a mild general reaction with fever and adenopathy.

Impetigo contagiosa is very largely an affection of childhood, attacking chiefly the dirty and unkempt, in whom it pursues a fairly typical course. But it is of much greater significance when it attacks adults, especially those who are of neat habits. Here its behavior is often highly atypical, and the sudden appearance of lesions on the face and throat usually leads the patient to believe that barber's itch or syphilis, or some other more or less reprehensible malady, has been contracted. Petty epidemics sometimes arise in connection with public swimming baths.

The sole lesion, in the vast majority of cases, is the flattened crust, which may be gray, yellow, or brown. This occurs by preference on the exposed surfaces—face, neck, hands, wrists, etc., and, in children who go barefoot, on the feet and legs. But no one should rest satisfied with this picture, for lesions may not only appear in almost any locality, but may exhibit a bizarre behavior. Thus Schamberg illustrates a case in which the lesions occupied the groins and axillæ, and exhibited a circinate, serpiginous progression. If we bear in mind that the affection can be grafted upon other conditions we must be prepared for much variety and ambiguity in expression in selected cases.

Etiology

In the absence of any specific cause Bockhart's view that it may be caused by a variety of germs which exert a very superficial action may be accepted for the present. The lesions, as becomes vesicles and bullæ, occupy the space between the horny and mucous layers, which accounts for the fact that the latter, the corium, lymphatics, etc., escape all serious implication.

Diagnosis

We have to exclude eczema, and as impetigo may be grafted upon the latter the differentiation is not always easy. Results of treatment in eczema, as in other maladies, must decide, for impetigo yields very promptly to treatment. There should be no confusion with sycosis of either type, because there is no involvement of the hair-follicles. Exclusion of syphilis is sometimes difficult, but as good a diagnostic

procedure as any is the simple detachment of the crusts which demonstrates the entirely superficial character of the lesions of impetigo contagiosa.

Treatment

The affection is perhaps more easily cured than any other of its class. Hence there is no need to use applications in any notable concentration. If there should be any difficulty in detaching the crusts they may be softened with borated vaseline. The exposed surface should then be cleansed with an antiseptic solution, and if the eruption is general an antiseptic bath may be given. The best application for the lesions is an ointment of white precipitate. The usual strength of thirty grains to the ounce is unnecessarily high, and while comparatively harmless, is less effective than a two per cent. ointment. An efficient formula is:

℞ Hydrarg. ammon.	gr. x
Zinci oxidi	℈i
Ungt. aq. rosæ	℥i

M. et ft. ungt.

Fig. 14. Model in Dermatological Clinic in Freiburg (*Vogelbacher*).

Hydroa Vacciniforme

Synonym: Hydroa æstivale

Plate **9,** FIG. 15

This is an affection of childhood and adolescence, hence in part developmental, which tends to appear in successive summers. It may be papular, but is usually vesicular and, like vaccine vesicles, leaves pits.

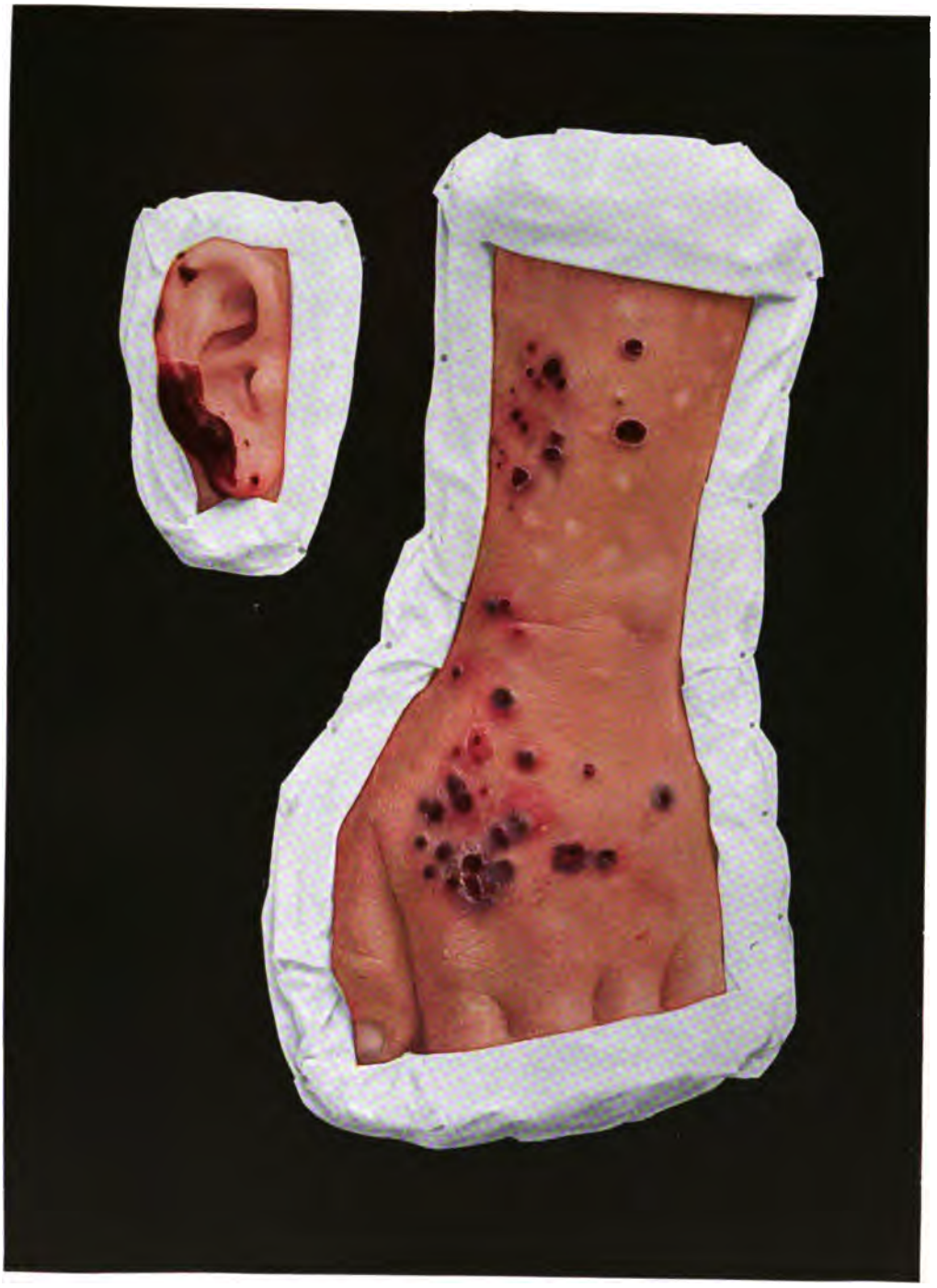
It is very largely limited to males. Since it occurs by preference on exposed surfaces it presents almost the same causal factors as freckles. It is, moreover, a familial affection in certain cases. The lesions come out somewhat like a rash, with some general disorder and local sensory disturbance—burning, or more rarely itching.

In a well-marked case the nose, cheeks and ears are first the seat of a diffuse or circumscribed redness. As a rule, small vesicles, the largest pea-sized, appear on this basis. The considerable size of some of the vesicles is responsible for the term hydroa. Coalescence is rare, but blebs have sometimes formed. The contents of the vesicles are at first clear, then turbid. The majority of them undergo distinct umbilication, after which crusts form and come away, leaving small scars.

The vesicles may appear in several successive crops during the summer, at intervals of several weeks; or, more commonly, there is a more or less continuous evolution of them. This, with the annual recurrence, will tend in the worst cases to very extensive pitting of the nose and other localities. There are numerous atypical forms. The affection may be abortive and may not reach the vesicular stage; or it may appear in cool weather and in adults. In some cases there may be considerable scattered eruption on the covered regions.

Etiology

Aside from the predisposition the sole causal factor appears to be the summer sun, and wind. The pathologic process is an inflammation of the papillary layer of the corium.



No. 15. Hydroa vacciniformis.

Diagnosis

Several somewhat similar conditions have been described, and it is a question whether or not they are simply atypical forms of hydroa vacciniforme. Unna's hydroa puerorum shows no tendency to a seasonal incidence and does not lead to scarring. Summer prurigo is a papular itchy eruption, diffused over the integument.

Treatment

The face should be protected from the chemical rays of the sun, and most authorities recommend the wearing of orange or red or dark-colored veils. Theoretically, this may be good prophylactic treatment, but it must be remembered that our patient is a small boy at play with his fellows and, well, a small boy is a small boy the world over. The application of a thick lotion containing calamine, magnesia, and zinc would be more practical and quite as effective. Norman Walker suggests that in mild cases it is often best to explain the nature of the disease to the parents, and tell them not to worry too much about it.

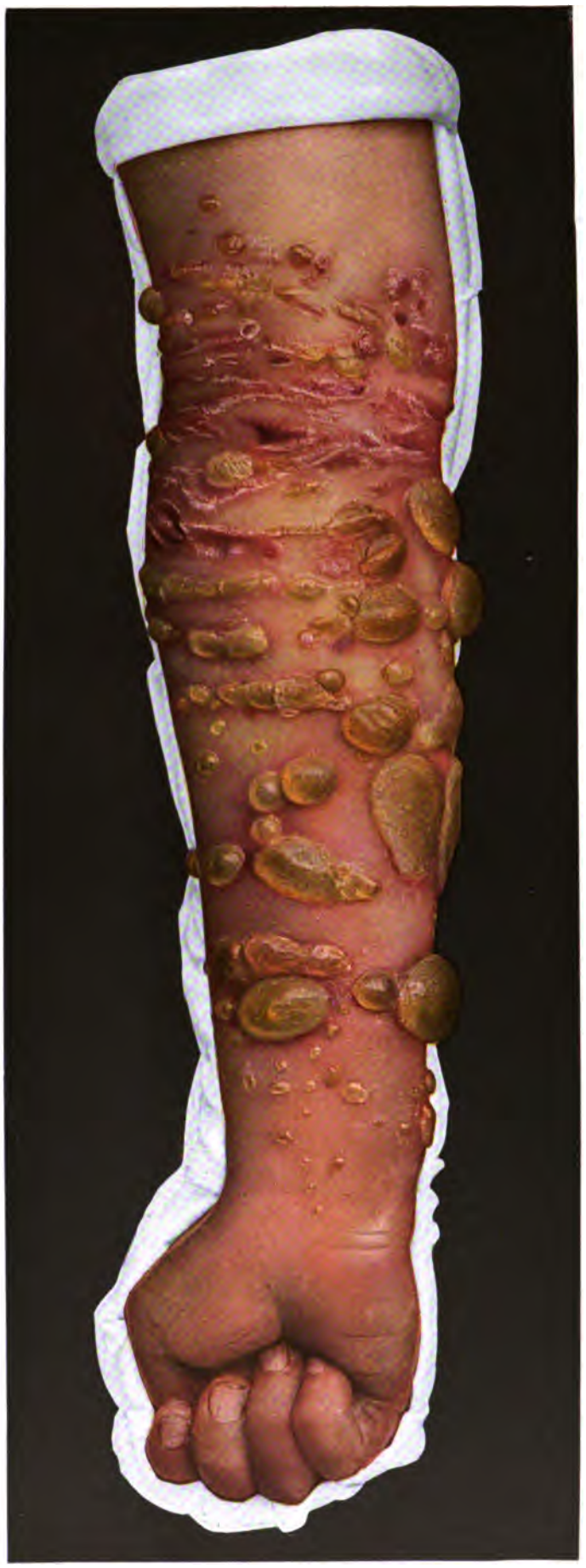
Fig. 15. Model in Dermatological Clinic in Freiburg (*Vogelbacher*).

Pemphigus Vulgaris

Plate **10,** Fig. 16

Pemphigus is a term that has been applied to a variety of bullous affections, certain of which have but little in common beyond the presence of the bullæ themselves. Since any intense inflammation of the skin, however produced, may give rise to bullæ, it is necessary first of all to distinguish between pemphigus proper anl the pemphigoid eruptions, especially such as dermatitis herpetiformis, urticaria bullosa, etc. It must not be forgotten that in nearly all vesicular affections bullæ may result from coalescence, sometimes as a rule, sometimes only exceptionally. The presence of bullæ under such circumstances may be obscured by their rapid rupture, or by the drying of the turbid contents into crusts or scabs. Thus some writers affect to believe that impetigo contagiosa measures up to the standards of true pemphigus. There are also eruptions in which the lesions are intermediate in size between vesicles and bullæ which are termed hydroa, and some of which appear to present no essential differences from pemphigus. Finally, the affection known as pompholyx has often been confused with pemphigus.

It is therefore highly important to determine not only whatever does not belong to true pemphigus, but to give to the latter all the positive attributes possible. First of all pemphigus must be regarded as a rare and a chronic affection. Its essential primary lesions are always bullæ at the very outset. They must arise either upon normal skin, or at most on skin which is slightly reddened. They have no limited areas of distribution, but may appear on almost any portion of the integument, and save in the universal forms, independently of any local or traumatic factors. The fact that the mucosæ suffer with the skin in severe cases also shows plainly the endogenous nature of the malady. Several well-defined types of pemphigus exist, but to what extent these represent separate affections or mere varieties or degrees of intensity cannot be determined.



No. 16. Pemphigus vulgaris.

Pemphigus vulgaris is appropriately named, as it is the most common type of the affection. It is a chronic affection only in the sense that new lesions continue to appear. They do not, however, change their type, for the bullæ in a long-standing case do not differ from those of the first outbreak. In the main the lesions appear in crops, with intervals of latency; but as in all diseases which manifest themselves by successive outbreaks, we may at times encounter serial or overlapping cases in which the surface appears to be constantly covered with bullæ. In these cases there is usually some marked constitutional involvement and the prognosis is grave, although death may not be due directly to the eruption, which may cause of itself but little general disturbance. Even if the single first outbreak is unusually thick or confluent, the prognosis is much more serious than when it is sparse. The bullæ are therefore rather an index of some, perhaps grave, general state than a direct cause of death, which may be due to the most varied causes. As will be seen later, the two other forms of pemphigus appear to be able to destroy life directly, and it is no doubt true that pemphigus vulgaris may sometimes pursue a similar course. It appears justifiable to speak of benign and malignant pemphigus vulgaris.

Under ordinary circumstances, or, as we may say in benign cases, a crop of bullæ requires one or two days for its evolution and one or two weeks for its involution. Sooner or later a new outbreak appears, followed by others, which are less and less pronounced, until after some months the process is arrested.

Ætiology

Nothing is known of the intimate nature of pemphigus vulgaris, and even the conditions under which it occurs show little uniformity. Several causal factors are vaguely evident. One is a neurotic element, suggesting that in miscellaneous affections of the central and perhaps the peripheral nervous system there may be a lowered resistance of the skin to noxæ of various kinds. Another element is the frequent suspicion of contamination from human or animal disease products; in some cases the causation appears to be septic infection of the ordinary sort. Autotoxemia, including the intestinal type, is a third factor often recognizable.

Diagnosis

Pemphigus vulgaris requires differentiation only from the other types of pemphigus and from such pemphigoid eruptions as erythema

multiforme, urticaria bullosa, and dermatitis herpetiformis. This should not be difficult after a given case has been under observation for some time.

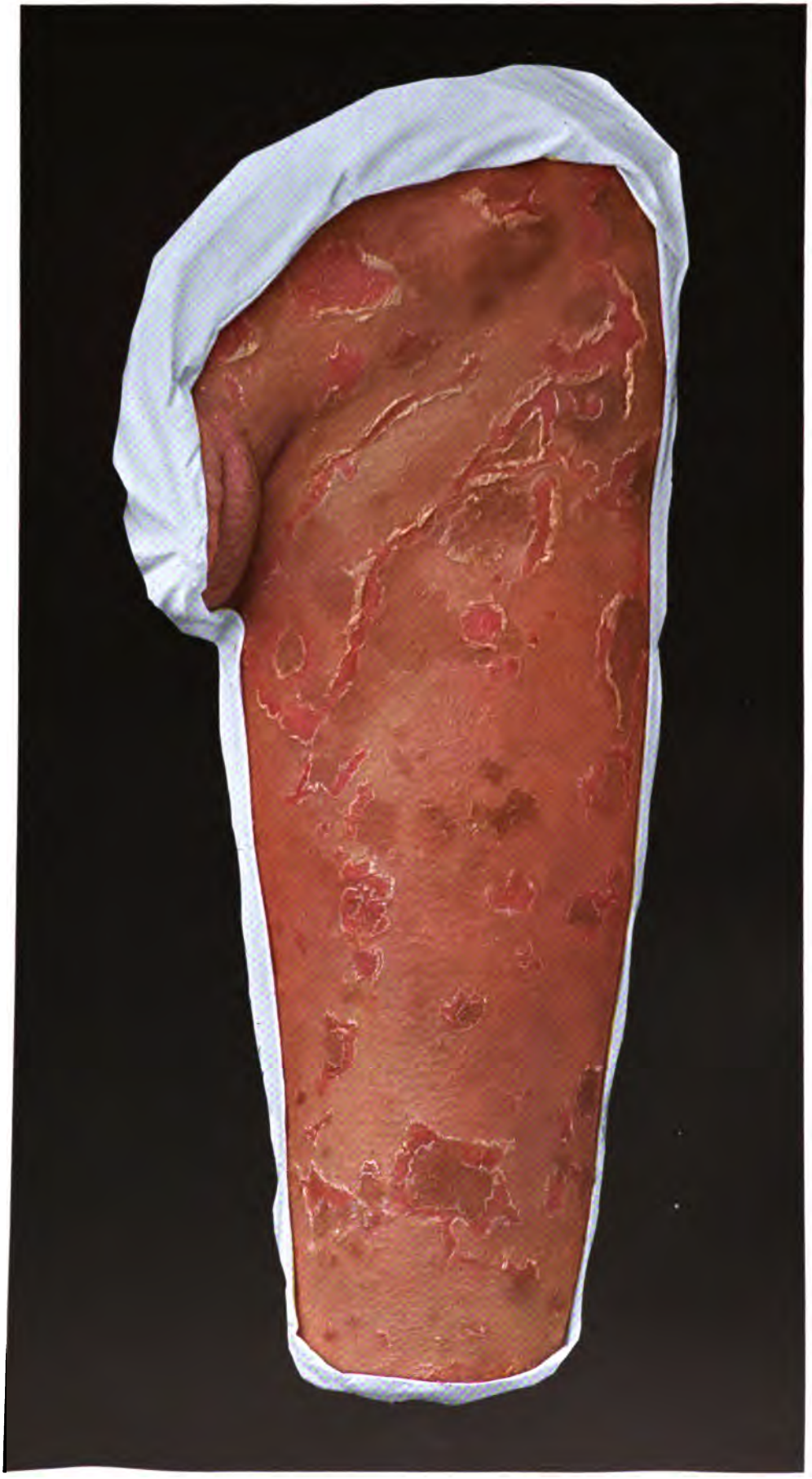
Prognosis

As a rule, the greater the freedom from local and general complications of any sort and the more scanty the eruption, the better the outlook, which is, under other conditions, always serious.

Treatment

Arsenic has an unquestionably specific action on pemphigus vulgaris, but whether it can save life in the grave cases is open to doubt. It is often combined with strychnia and quinia and other tonics. The patient should be studied thoroughly and be given the advantage of any improved hygiene. Locally, the management is practically that of intensive moist eczema—the same medicated baths, lotions, etc. Hebra many years ago treated pemphigus with the continuous bath, and this resource is well calculated to make the patient as comfortable as possible under the circumstances. The same end may be attained by a system of dressings, as in the case of universal eczema, severe burns, etc.

Fig. 16. Model in Dermatological Clinic in Freiburg (*Vogelbacher*). Malignant pemphigus vulgaris. Death ensued within a few weeks.



No. 17. Pemphigus foliaceus.

Pemphigus Foliaceus

Plate **11**, Fig. 17

In this form of pemphigus, as in pemphigus vulgaris, new bullæ constantly appear; but since the areas denuded show no tendency whatever to heal, the disease picture differs extremely from that of the ordinary form. Pemphigus foliaceus may develop from pemphigus vulgaris or may appear de novo. When the bullæ do not rupture at once, they coalesce, and considerable quantities of seropurulent fluid collect and, following the law of gravitation, form characteristic flaccid sacs, instead of tense, rounded bullæ. The ultimate tendency of the disease is to denude the entire corium. This is effected not only by the formation of new bullæ, but by burrowing at the periphery of those already formed. Upon the excoriated surface feeble attempts at epidermization are seen side by side with the formation of small abortive bullæ in the imperfectly generated epidermis. The discharge also dries upon the denuded surface in the form of crusts having a sort of tile-like arrangement from the development of fissures. These dried crusts are shed as a result of the oozing beneath and this phenomenon gives the disease its name. Ultimately nearly the entire integument with the visible mucosæ may become involved, but death often occurs while much of the skin is still intact along with the mucosæ. In advanced cases one of the most distressing symptoms experienced by the patient is a sensation of constant cold and chilliness. The nails and hair are not necessarily lost, but the former become deformed and the hair shed abundantly.

Etiology

The cause of the disease is unknown. Some authorities, however, believe that it is due to the presence of a toxin circulating in the blood and that the cutaneous manifestations are secondary.

Diagnosis

When the mucosæ are involved pemphigus foliaceus is automatically differentiated from any of the forms of universal dermatitis.

There are, however, cases so mild that one would hardly be likely to associate them with so grave a condition. The flaccid bullæ, and the excoriated surfaces which refuse to heal are sufficient for diagnosis, but since the lesions at first may respond to the use of arsenic, the practitioner may regard the affection as ordinary pemphigus. Ultimately the disease is unmistakable and the odor is so characteristic that a diagnosis can often be made from a considerable distance.

Prognosis

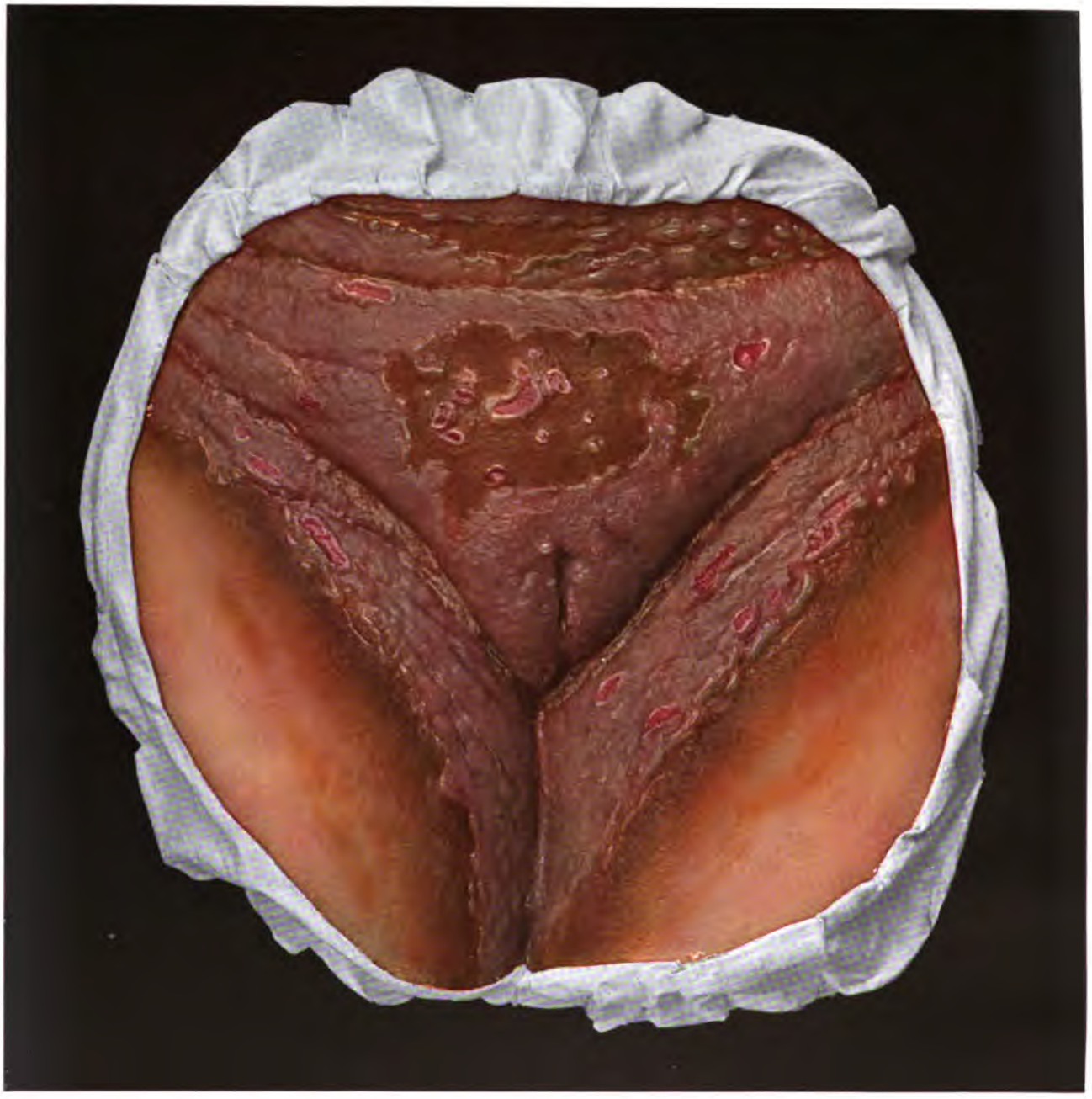
This is always grave.

Treatment

There is no known efficacious treatment and considering the gravity of the disease any rational form of experimental therapy is fully justified. Some of the symptoms may be relieved by local treatment similar to that employed in pemphigus vulgaris.

Attempts should be made at active disinfection of the exposed surfaces, for at present we do not know how much of the fatal elements in pemphigus may be due to the absorption of toxic matter.

Fig. 17. Model in Neisser's Clinic in Breslau (*Kroener*).



No. 18. Pemphigus vegetans.

Pemphigus Vegetans

Plate **12,** Fig. 18

This affection, like pemphigus foliaceus, is best described independently; for despite the fact that it is a bullous dermatosis, it was originally not classed as pemphigus, and it is largely a matter of opinion even now as to whether it should be so regarded. There is no doubt, however, that it shades into the different forms of pemphigus. Exceptionally pemphigus vulgaris and pemphigoid affections may assume a vegetating character. In the typical disease, however, pemphigus vegetans is a distinct affection from the outset. It tends to attack moistened cutaneous surfaces and the visible mucosæ; and to this peculiarity is to be attributed the fact that the excoriations resulting from the maceration of the skin tend to form condyloma-like excrescences. The affection therefore markedly resembles the so-called moist syphilides; and as a matter of fact it was originally confounded with syphilis, even by such authorities as Kaposi.

This resemblance to syphilis is so pronounced that an account of pemphigus vegetans is largely a matter of differential diagnosis. The disease is such a rarity that generalizations are hardly wise; but its most pronounced differential feature in all typical cases is failure to respond to treatment of any sort. A lesion of pemphigus vegetans is to all extent and purposes a lesion which is semi-malignant. It has no tendency to heal nor can it be made to heal. In many cases there is an added tendency for the lesions to generalize from the moist to the dry surfaces. In these generalized cases there is an undeniable resemblance of the lesions to those of ordinary pemphigus. The vegetating feature, however conspicuous, is perhaps (like the continuous exfoliation) merely a detail, as is the case in syphilis. Death in certain cases if not in the majority is due to some intercurrent or pre-existent affection, but it frequently occurs from the disease itself, possibly as the result of exhaustion. One of my patients, a woman of sixty, died three months after the appearance of lesions in the mouth. She was well nourished and at autopsy an experienced pathologist was unable

to discover any visceral lesion that would in any way account for death.

Etiology

Aside from the fact that most of the victims have been middle-aged women, some of whom had previously contracted syphilis, but little can be said under this head. There is no apparent connection with gestation or with the nervous system. In a very few cases the disease may have represented a septic infection, which lends some color to the hypothesis of a crypto-genetic sepsis. Histologically the vegetating lesions present a picture very much like that of syphilitic condylomata.

Prognosis

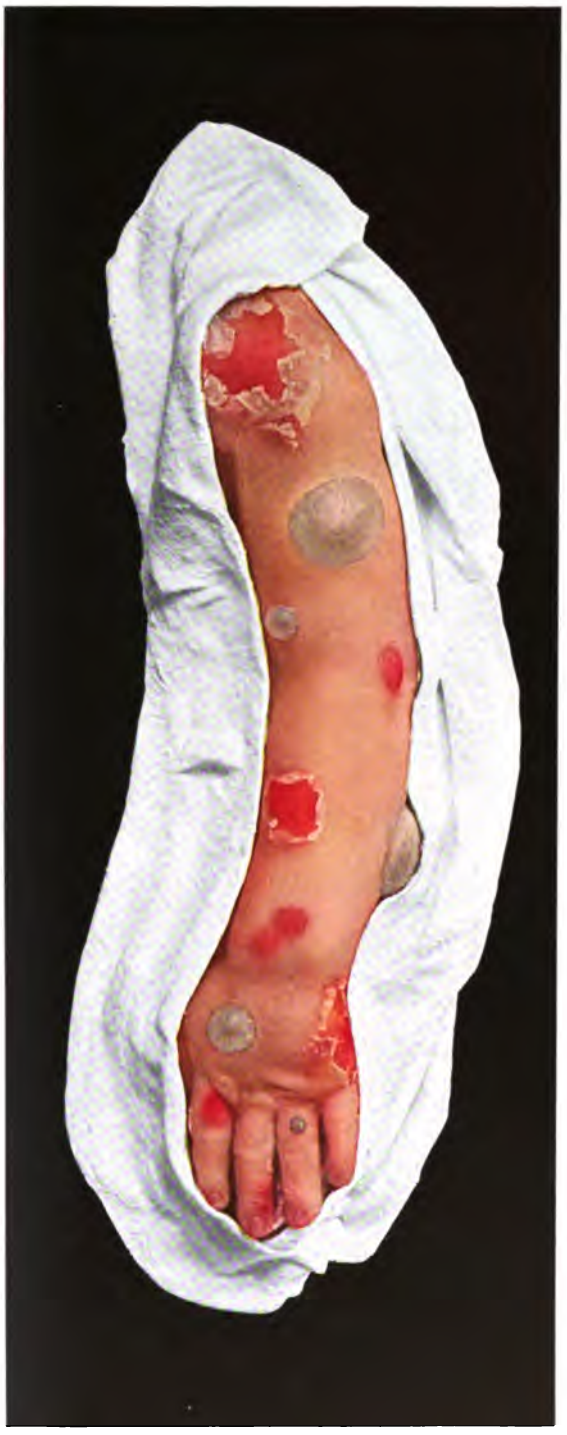
The course of the disease is much like that of pemphigus foliaceus. In typical cases the patient is almost sure to succumb to exhaustion within a year, while some perish as early as two months. Cases of reported recovery are usually found to be those which were distinctly atypical, either because grafted upon ordinary pemphigus, or some pemphigoid eruption, or because the lesions showed no tendency to generalization.

Treatment

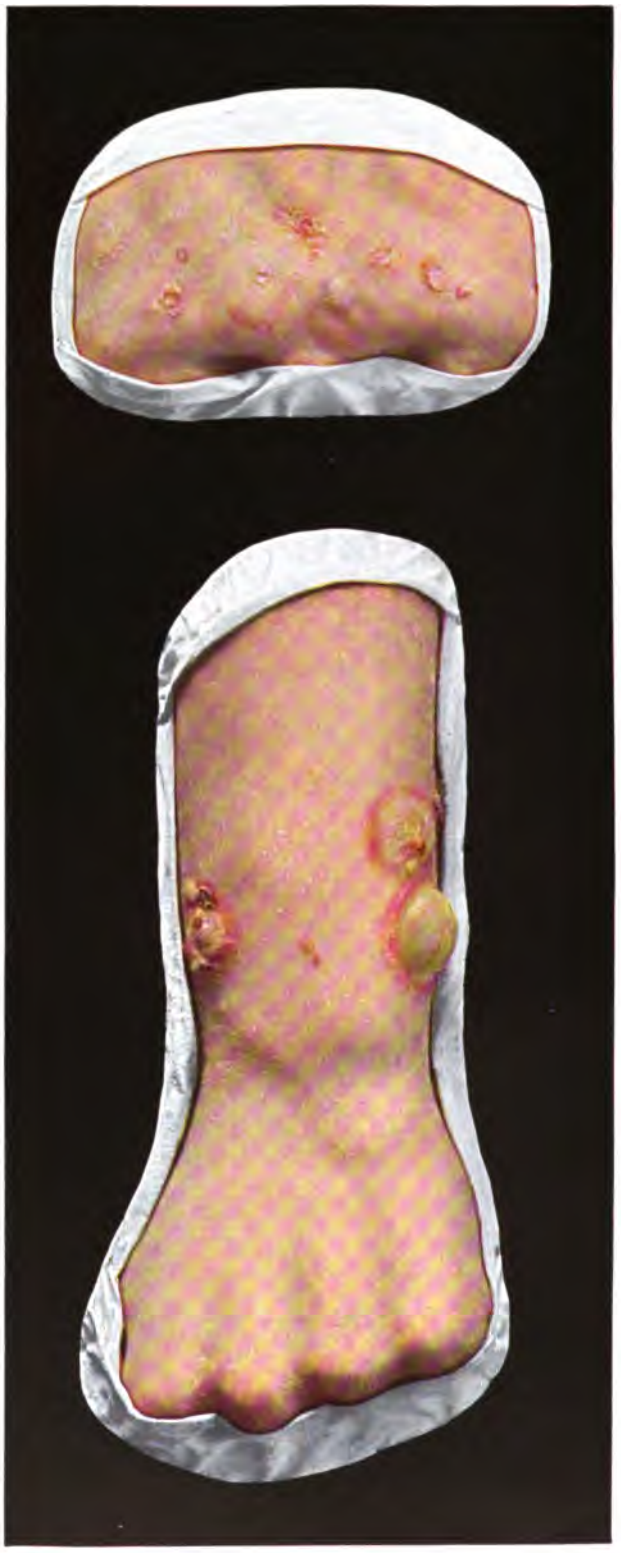
Although arsenic is of little or no value in this disease, the employment of salvarsan is worthy of trial. Mercury and potassium iodide do not appear to retard the progress of the disease.

Aside from the general desiccating and soothing remedies in common use in similar cases and the continuous bath, the only rational measure ever introduced in harmony with progressive therapeutics is disinfection, which is performed somewhat as in extensive burns. On account of the superficial character of the lesions mild measures may suffice, such as solutions of hydrogen peroxide, potassium permanganate and Labarraque's solution in proper dilution. These may be used in spray form or on saturated cloths. Carbolic acid solutions have been advised whenever the danger of absorption can be minimized.

Fig. 18. Model in Neisser's Clinic in Breslau (*Kroener*).



No. 19. Pemphigus neonatorum.



No. 20. Dermatitis herpetiformis.

Pemphigus Neonatorum

Plate **13,** Fig. 19

It is almost universally conceded that this is a pemphigoid condition having absolutely no connection with pemphigus proper. It has several sharply defined clinical characteristics. First it attacks the newly born only; second, it is contagious, and tends to occur in epidemics in maternity hospitals; third, it is dependent in some manner on conditions which favor septic infection, and is often associated with septic conditions either in the infants themselves, the puerperal women, or the attending physician and nurse. Thus it may be regarded as one member of a group disease—acute sepsis of the newly born, which comprises such other members as umbilical sepsis, septic coryza, septic pneumonia, buccal sepsis, etc. Pemphigus is, in fact, by no means the sole type of cutaneous sepsis of the newly born, for under this head are commonly placed Ritter's disease (dermatitis exfoliativa neonatorum); ecthyma (some forms of which cause gangrene); multiple subcutaneous abscesses, etc. Even erysipelas neonatorum has been placed in the same category. Associated with all these manifestations we find the ordinary pus-exciting microorganisms, which are commonly held responsible for puerperal sepsis in the mother.

The mechanism of infection presents the same obscurity in the infant as in the mother. The pyogenic microorganisms are no doubt inoculable, for adults sometimes contract bullæ from the children. But if that were all the disease signifies, it would only be plain impetigo contagiosa. The latter, as stated elsewhere, is not known to cause constitutional infection even under aggravated conditions, and is never regarded as in any sense septic. In pemphigus neonatorum, however, a large proportion of the children are already septic or soon become so. If the bullæ are regarded as primary lesions, some constitutional reaction should occur, but that they should form a port of entry for germs is not in accordance with analogy. It is more likely that cachectic or premature children, while specially prone to contract the eruption, in reality perish from other causes; or that some more severe form of sepsis attacks the child at the same time. That the bullæ are metastatic is not to be believed, for skin lesions, secondary to known sepsis, are very rare and behave in a very different manner.

To understand better a problematic affection of this sort, the study of an individual epidemic is instructive. In the fall of 1906 twenty-seven babies were attacked in the Lying-In Hospital of the City of New York. The great majority developed the affection from the fourth to the seventh day. Nine babies died, but in only six cases could it be held that pemphigus caused death, and in none was there evidence of general sepsis. The more severe as a rule the eruption, the graver the prognosis; in other words, the eruption furnished an index of severity, arguing the existence of a strong predisposing element. The absence of fever in some of the worst cases seemed to indicate a profound toxemia of the sort sometimes seen in rapidly fatal diseases. In certain cases contagion could be shown. Staphylococci could be cultivated from the bullæ. None of the mothers were septic. H. J. Schwartz, who describes the preceding, is inclined to believe that toxins formed by the local suppuration caused death in the fatal cases, and it is possible that in this as in similar maladies a toxic substance is produced in the skin analogous to that now known to be the essential cause of death after burns. Such cases at least suggest the possibility of a fatal component which has no connection with sepsis. At the other extreme are innocent cases, in all respects resembling impetigo contagiosa, which tend to appear about the navel only (periumbilical pemphigus). In certain cases this mild type becomes the starting point for the ordinary severe form.

The eruption of pemphigus neonatorum in typical cases appears within the first fortnight of life, and without any regular sequence. The blebs may be few or many, and in the worst cases become confluent in certain localities, denuding large quantities of skin.

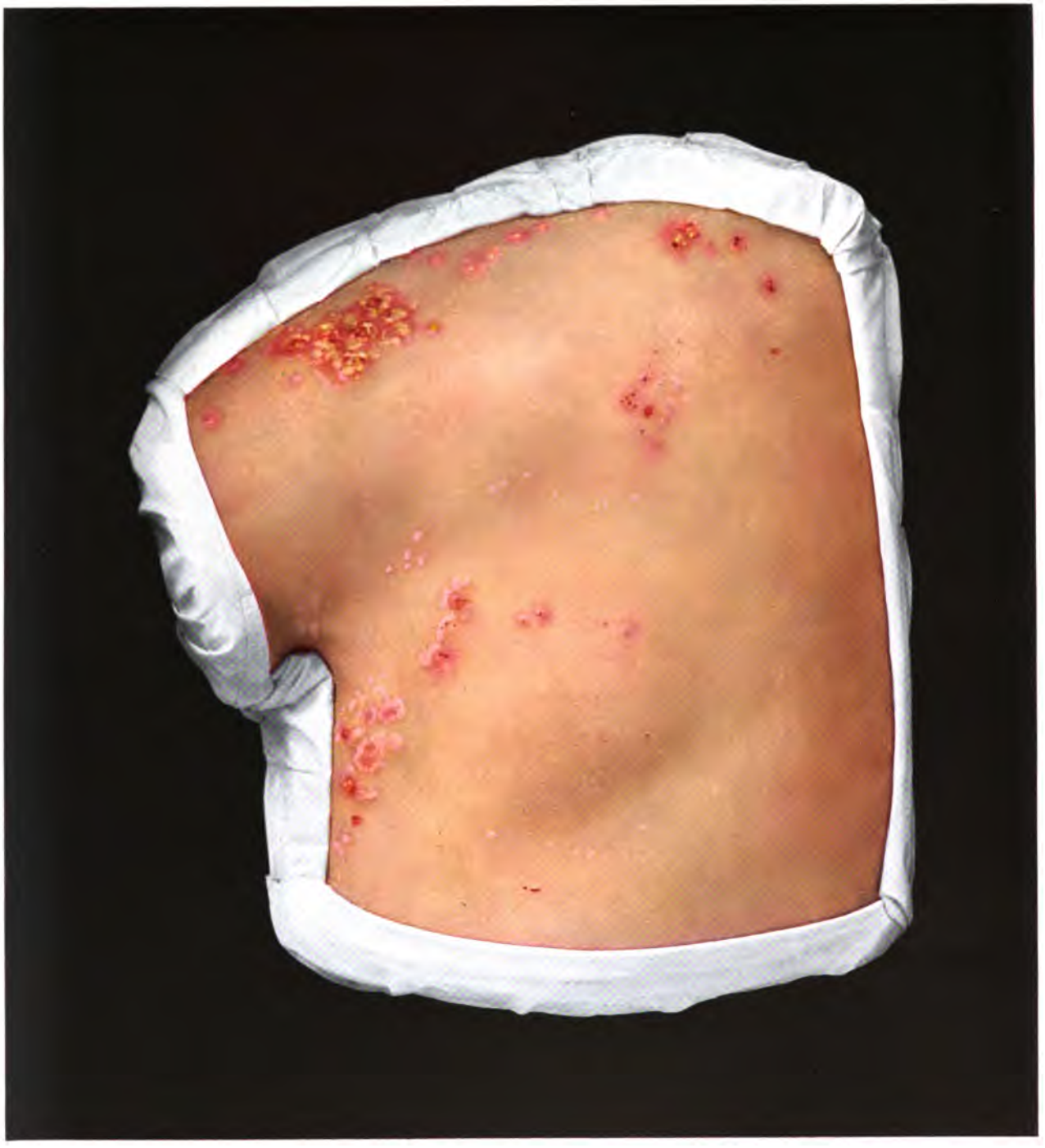
Diagnosis

This should give no trouble. The usual proof is secured by cultivation of one of the pyogenic cocci from the serum of the bullæ.

Treatment

But little can be said under this head. The infant should be isolated and placed under all available hygienic conditions. The bullæ should be punctured and treated with soothing antiseptic dressings. In severe cases, however, local treatment is of little avail. Too much stress cannot be laid upon the necessity for early and complete isolation, as the contagious nature of the disease is now fully recognized.

Fig. 19. Model in Lesser's Clinic in Berlin (*Kolbow*).



No. 21. Dermatitis herpetiformis.

Dermatitis Herpetiformis

Synonyms: Duhring's disease; Hydroa herpetiforme, Pemphigus pruriginosis

Plate **13,** Fig. 20; *Plate* **14,** Fig. 21

This affection was first described as such by Duhring, but it was evidently familiar to many of his predecessors under other designations. It is a highly multiform affection, and one of the commonest features of the eruption is the presence of clusters of herpes-like vesicles. It may present any cutaneous lesion save ulceration, and sooner or later is followed by deep pigmentation.

The great possibilities for difference in type in individual cases made it a difficult disease to describe, and this probably accounts for the delay in its recognition as a clinical entity.

In young children it may be wholly vesicular or bullous; and in some of the worst cases in adults the lesions may consist of erythematous patches and papules or vesicopapules. As a rule consecutive attacks present the same lesions as the first outbreak, so that some would divide the disease up into several distinct types. Itching is said to be most intense during the evolution of an outbreak. According as the outbreaks succeed one another rapidly or with long pauses, the appearance of the case will vary. In the former case it is more likely to be generalized, as in the opposite instance many lesions will disappear. When the lesions do not proceed beyond the erythematous stage the eruption is said to resemble greatly erythema multiforme when that affection is generalized.

The question naturally arises as to whether there are any characteristics which belong especially to this one disease. Is there anything characteristic of the individual lesions? The large vesicles and bullæ show peculiar outlines. Instead of being rounded or oval they are angular, polyhedral, elongated and in general show great irregularity. They are also grouped closely together and otherwise resemble groups of herpes vesicles. The groups, however, are often very large—often

as large as the palm of the hand, and even occur in large sheets. Then, again, a large portion of an entire limb may be studded with more or less discrete lesions. As with pemphigus, the mucous membranes may suffer. It can hardly be claimed that there are any true localities of preference. Like those of pemphigus, its lesions may appear almost anywhere.

Etiology

The same neurotic element is present here that we have already seen in pemphigus. Also the autotoxic and septic factors, and it is highly probable that the neurotic element may depend on the presence of a toxin in the blood. Eosinophilia is invariably present, as well as indicanuria.

Histologic study throws no light on the nature of the disease.

Diagnosis

When first seen, and especially during the early outbreaks, a diagnosis is often difficult, because the multiform nature causes it to simulate so many other conditions. The diagnosis is often left open until the case can be studied thoroughly. In the erythematous and papulovesicular stages, the affection is readily confused with eczema or erythema multiforme, some authors to the contrary notwithstanding. Intense itching, refractoriness to treatment, occurrence in successive crops and marked pigmentation cause suspicion of dermatitis herpetiformis. However, if the characteristic vesicles, bullæ or pustules are present, the correct diagnosis is at once suggested.

Prognosis

This should be guarded, as the disease is essentially a chronic one. Still, many cases improve notably, doubtless as a result of general treatment.

Treatment

In a persistent disease like dermatitis herpetiformis, hygienic measures are of great importance. Everything possible should be done to relieve or avoid strain upon the nervous system. Rest, freedom from work and worry, and particularly a change of surroundings, are indicated. Articles of diet which are prone to cause fermentative changes in the intestines, thereby increasing autointoxication, should be interdicted. Internal medication should be directed chiefly toward improving the patient's general health. Tonics such as strychnia, quinia,

phosphorus, iron and cod-liver oil, may be used. Of all remedies, however, arsenic, judiciously administered, is the most valuable. It acts almost as a specific in some cases, particularly those of the vesicular or bullous type. The dose should be increased gradually until the disease shows signs of yielding, or the well-recognized symptoms of arsenical toxemia appear. The prolonged administration of arsenic is not to be endorsed, and its ability to promote epithelial growth should be kept in mind. Crocker prefers salicin to arsenic, and recommends that it be given three times a day in doses of from fifteen to thirty grains. Potassium permanganate in one-grain doses, in capsules, taken after meals, was of apparent benefit in a number of my cases.

Locally, any of the antipruritic and antiphlogistic applications may render aid. For the pruritus, solutions of ichthyol, potassium permanganate, or liquor picis alkalinus are of considerable value. The following lotion is particularly serviceable in extensive eruptions with a good deal of inflammation:

℞ Acidi carbolici 3i
Pulv. calamine prep. 3ii
Zinci oxidi 3iv
Glycerini 3vi
Aquæ calcis ..... ℥i
Aquæ rosæ ..... ad ℥viii

M. Et ft. lotio.

Ointments, as a rule, are of less value, although good results are generally obtained from the use of mild sulphur ointment, as first recommended by Duhring himself.

Fig. 20. Model in St. Louis Hospital in Paris, No. 1852 (*Baretta*). Tenneson's case.

Fig. 21. Model in Dermatological Clinic in Freiburg (*Vogelbacher*).

Urticaria

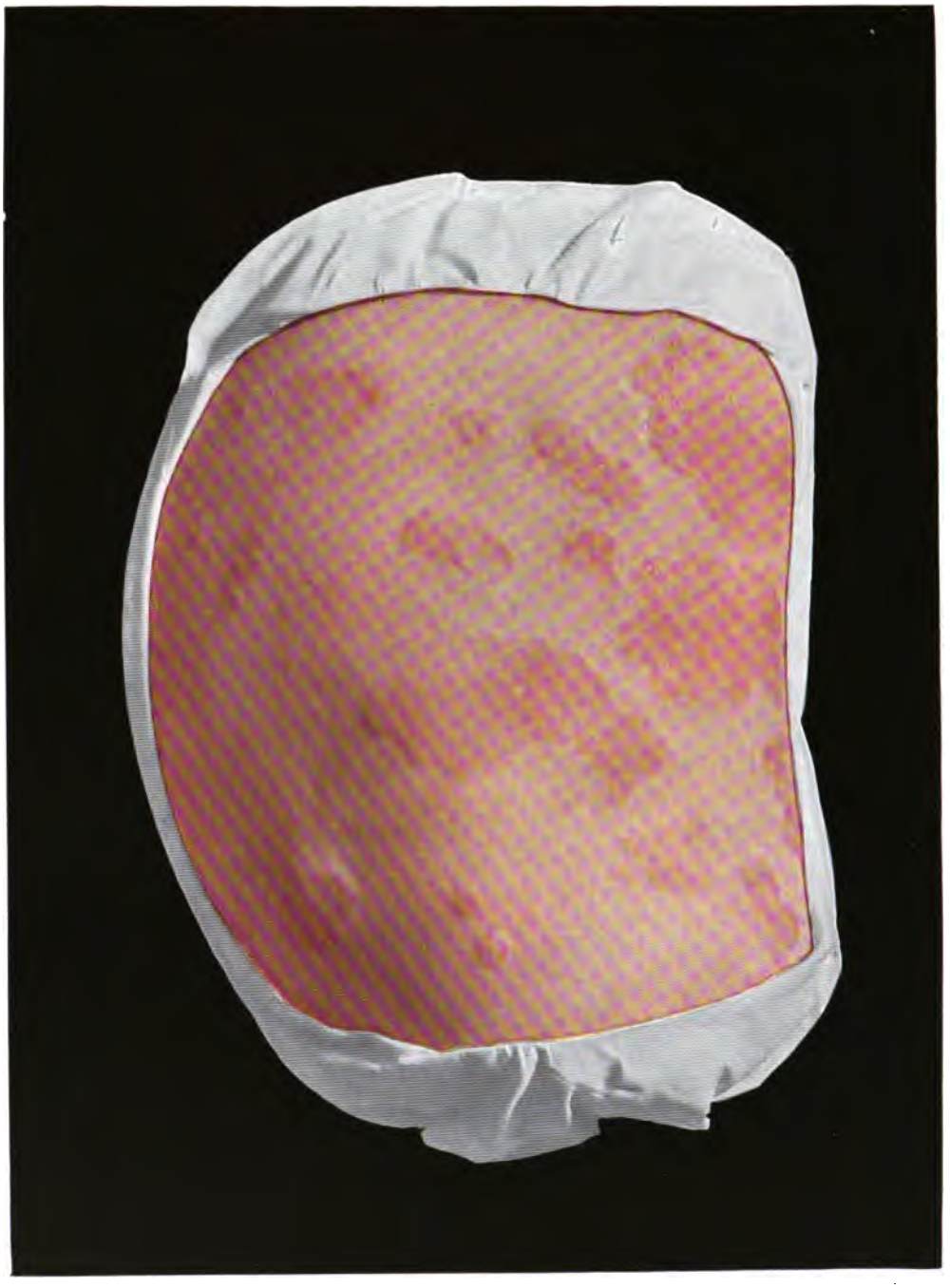
Synonyms: Hives, Nettle rash

Plate **15,** Fig. 22; *Plate* **16,** Fig. 23; *Plate* **17,** Figs. 24 and 25.

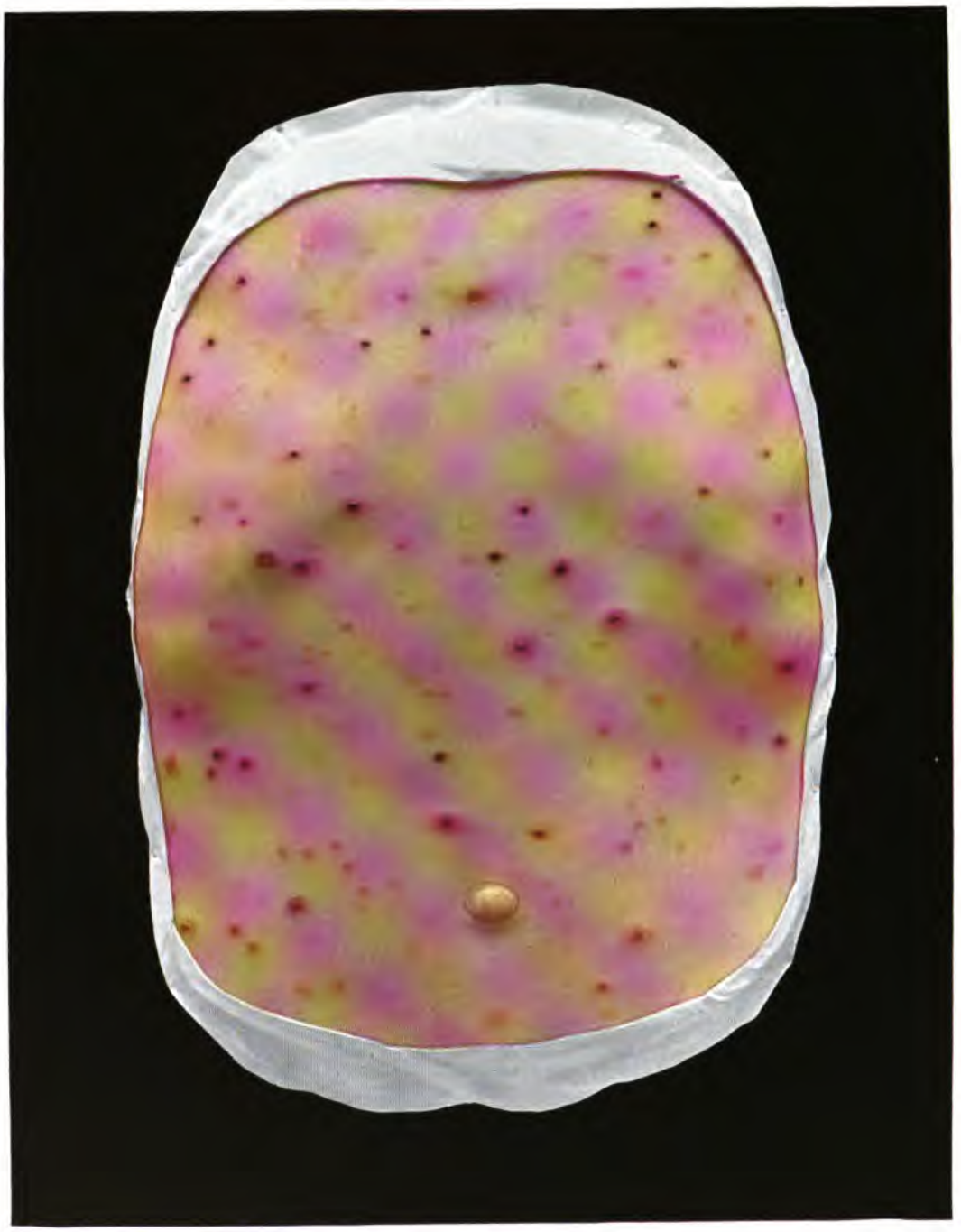
This affection must be regarded in a twofold manner. First as an innate peculiarity of certain skins, in virtue of which wheals may be produced at a point of irritation. To a certain extent this is not a peculiarity, for it resides in all skins. Thus the mosquito, bedbug, body louse and other insects produce wheals in all or nearly all by their bites. In some individuals lesions are produced by contact with jelly-fish. The point of a hypodermic or of an electric epilating needle very often causes a small wheal. A high, specialized degree of this behavior is seen in urticaria factitia and dermographism. These manifestations may be produced at will in some subjects. Thus whipping with nettles will bring out a crop of wheals, and by dermographism is meant that artificial wheals may be determined in lines, curves, etc., so that writing may be produced. Other skins behave in this manner only during an acute general outbreak of urticaria.

Secondly, urticaria must be regarded as an acute generalized dermatosis of internal origin, of the exanthem type, characterized by the evolution of evanescent white or reddish wheals, during which there is much subjective disturbance—itching, burning, etc. Attacks may succeed one another in crops. The entire skin and visible mucosæ may be involved, and it is highly probable that an analogous disturbance occurs in the viscera.

There are numerous types of this affection. In the simplest and most familiar form there is a single crop of wheals which comes and goes in a few hours, the lesions being of pea or bean size; or the evolution may be slower and somewhat irregular, so that wheals are in evidence for several days. In rare instances the evolution of wheals is almost continuous, although the individual lesions come and go rapidly. The condition is then called urticaria chronica. In certain cases the wheals are represented by small papules closely aggregated. While these manifestations are usually comprehended under

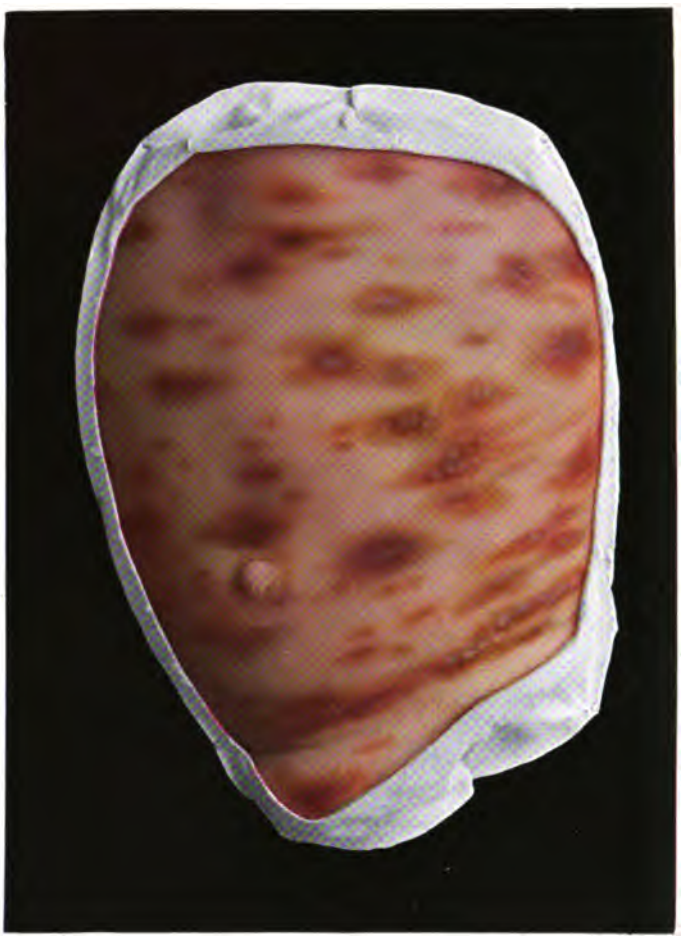


No. 22. Urticaria.



Nr. 23. Urticaria chronica infantum.

No. 24. Urticaria rubra.



No. 25. Urticaria pigmentosa.

urticaria factitia, they may occur spontaneously, as a result of some internal condition. They are then largely peculiar to the irritable skins of children and may be disseminated over the limbs. They resemble a papular eczema greatly, but their urticarial nature is shown by their evanescence. They are apt to occur over a period of several weeks.

Urticaria with large wheals is not uncommon, large red or white wheals being often associated with smaller ones. Sometimes several large wheals are closely approximated, forming a large firm swelling which resembles confluent insect bites. A minute hemorrhagic point in the centre increases the illusion. Large wheals, forming edematous tumors, are known as giant urticaria. Urticaria may be complicated with purpura (urticaria hæmorrhagica) and there is also a bullous type of urticaria (urticaria bullosa).

Urticaria pigmentosa (Fig. 25), usually regarded as a separate affection, may be mentioned here. In this affection the eruption is characterized by the usual wheals, but these do not undergo the usual involution. Instead they tend to persist indefinitely and a deposit of pigment occurs which is virtually permanent. The affection is almost peculiar to infants and children. The stains are not due to such familiar causes as hemorrhage and scratching, but seem to be part of a new formation of tissue, as an integral element in the disease, which, while it is but little affected by treatment, is usually outgrown at puberty.

Etiology

Urticaria has some deep-seated connection with the vasomotor system, and has affinities with the vasomotor neuroses. The first step in the formation of a wheal is angiospasm causing an area of local anemia. This spasm is followed by sudden vaso-dilatation and effusion, which compresses the vessels from without. This causes a white wheal with an outlying hyperemic zone. The process resembles somewhat the formation of the lesions in erythema multiforme. It is evident that the actual cause of the disease is that which tends to induce this angiospasm, and this is commonly a circulating toxin absorbed from the alimentary canal. Many familiar dietetic articles can cause it, the best known being shellfish, mushrooms, and strawberries. In many cases there is no evidence to point to any one substance, but simply a gastro-enteric crisis due to general dietetic abuses. In urticaria of intestinal origin, the intestinal tract may suffer as well, as a result of direct irritation from the toxic

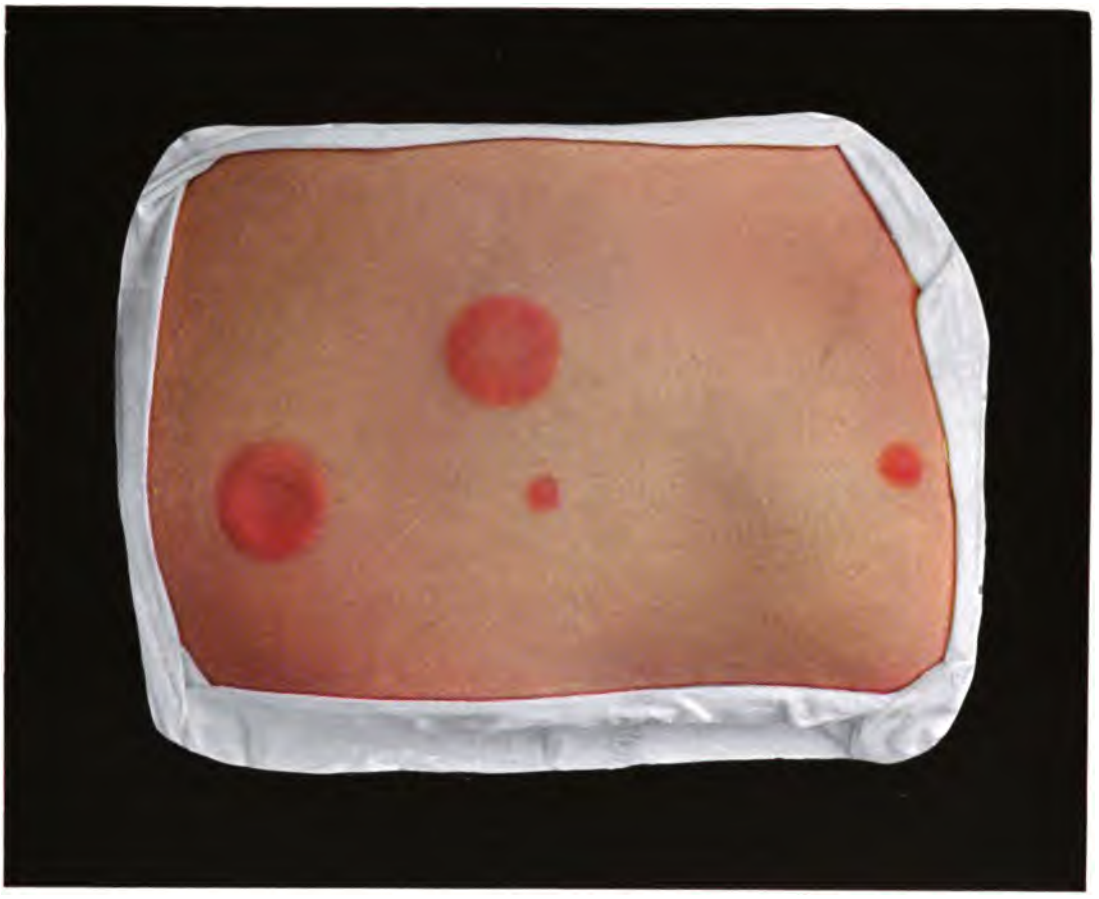
Dermatitis Medicamentosa

Plates **18** to **22,** Figs. 26 to 33

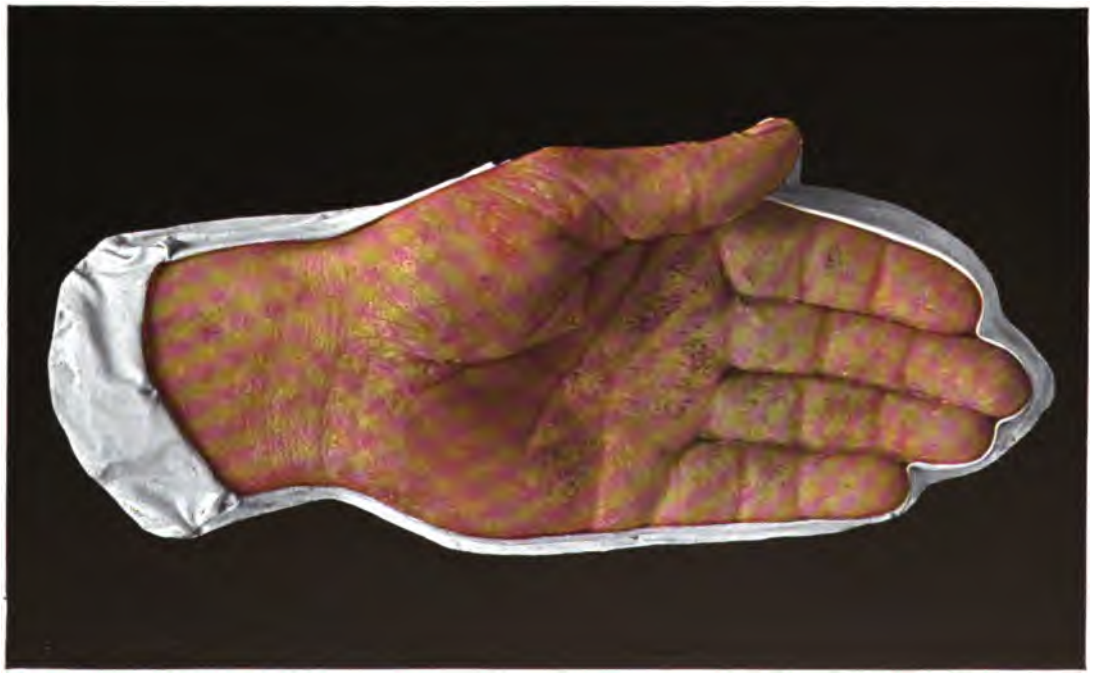
This term is employed to denote outbreaks caused by the internal administration of drugs, and is not to be confused with the various forms of dermatitis venenata caused by the external application of remedies. Drug eruptions do not differ essentially from dermatoses due to supposed autointoxications and metabolic disorders. In either case all the primary and secondary lesions may be represented, and marked polymorphism is sometimes seen. These drug rashes may also closely simulate the exanthems of acute infectious diseases. Nor are lesions due to drugs limited to mere acute efflorescences, for certain medicaments can produce chronic, productive and destructive lesions like the granulomata. Arsenic can cause an overproduction of horny epithelium, sometimes resulting in a malignant growth.

A very important distinction must be made between customary action, supersensitiveness, and idiosyncrasy in respect to this action of drugs on the skin. The term idiosyncrasy should not be confounded with supersensitiveness, for it implies something peculiar to the individual and, perhaps, his blood relatives. The idea of supersensitiveness has received a great impetus in recent years from the study of anaphylaxis. Supersensitiveness may, of course, be innate in a subject, but it is often the result of a poisoning on some previous occasion which has rendered the skin supersensitive to the substance in question. Anaphylaxis may also result locally, and the sensitiveness to poison ivy and the like is doubtless in part anaphylactic. A subject supersensitive to one drug may very likely be supersensitive to others. No doubt there is a general predisposition to drug eruptions based on unusual vasomotor irritability, and hence noted chiefly in children, certain women and neurotic subjects. Defective elimination has the same significance as overdoses, and certain drug lesions appear to have resulted from proved renal insufficiency in elimination.

A factor of great importance is that the rash, etc., provoked by



No. 26. Dermatitis medicamentosa (Antipyrini).



No. 27. Dermatitis medicamentosa (Arsenii).

a given medicament is not always connected with its true cause, so that the patient continues the use of the drug until a more or less serious condition results.

Few drugs exert their toxic action peculiarly on the skin. It must be borne in mind that other tissues are usually implicated, and that the offending substance leaves the body in the urine, in which it may often be detected.

In some instances a drug which is eliminated by the skin may come in contact with another locally employed. A chemical reaction may result, causing some local disturbance. The action of light on metallic salts which are in the circulating blood may also cause special phenomena, especially of the nature of discoloration of the skin.

A question naturally arises, are drug rashes to some extent the effects of elimination by the skin? There is little direct evidence as to the correctness of this speculation, but beyond the fact that these substances are in the circulating blood nothing is really known as to their modus operandi.

A drug eruption is recognized as such only by the crucial test of exhibiting the drug on a second occasion. Its known action on the supersensitive usually gives sufficient information. It is possible, by combining certain antagonistic drugs, to prevent many drug eruptions, but there is hardly any special treatment, save in severe chronic cases, to be mentioned later.

Following are some of the leading drugs which cause lesions and their symptoms:

Antipyrin (*Fig.* 26)

This drug does not, as a rule, cause anaphylaxis, but the contrary, as many become immune. It causes a general outbreak, but as a rule the face and trunk bear the brunt. The rash may be morbilliform, scarlatiniform or polymorphous. In rare cases bullæ, purpura, and pustules have been noted. A feature of especial significance is pigmentation following the eruption.

Arsenic (*Fig.* 27)

This drug is believed to have an elective action on the skin, and the number and variety of its collateral phenomena are too great even to enumerate. Arsenic can cause a typical herpes zoster, keratosis of the palms and soles, gangrene of the scrotum, pigmentation, and even epithelioma. The general pigmentation that frequently follows the continued use of arsenic is often mistaken for Addison's disease.

Bromine (*Fig.* 29)

These salts affect nearly all subjects. Bromic acne is much like the ordinary form, but has a tendency to confluence, producing a sort of small carbuncle. In mild cases lesions are rather confined to the face and shoulders, as in acne proper. In bromism supervening suddenly upon large doses the thighs are a favorite locality, and hardly any region is immune. In certain cases the papillary layer of the skin seems to be stimulated, so that fungoid outgrowths are produced without previous ulceration. Cutting off the drug may not be followed at once by improvement. Lesions may even continue to appear.

Chloral Hydrate

A typical drug rash not infrequently follows its use. A scarlatinoid exanthem, implicating the mucosæ, and succeeded by desquamation, is well known. Various anomalous rashes also occur, as in the use of other drugs.

Chlorine (*Fig.* 32)

Workers in this gas often suffer from an acne-like affection, believed, however, to result from outward exposure, at least in part.

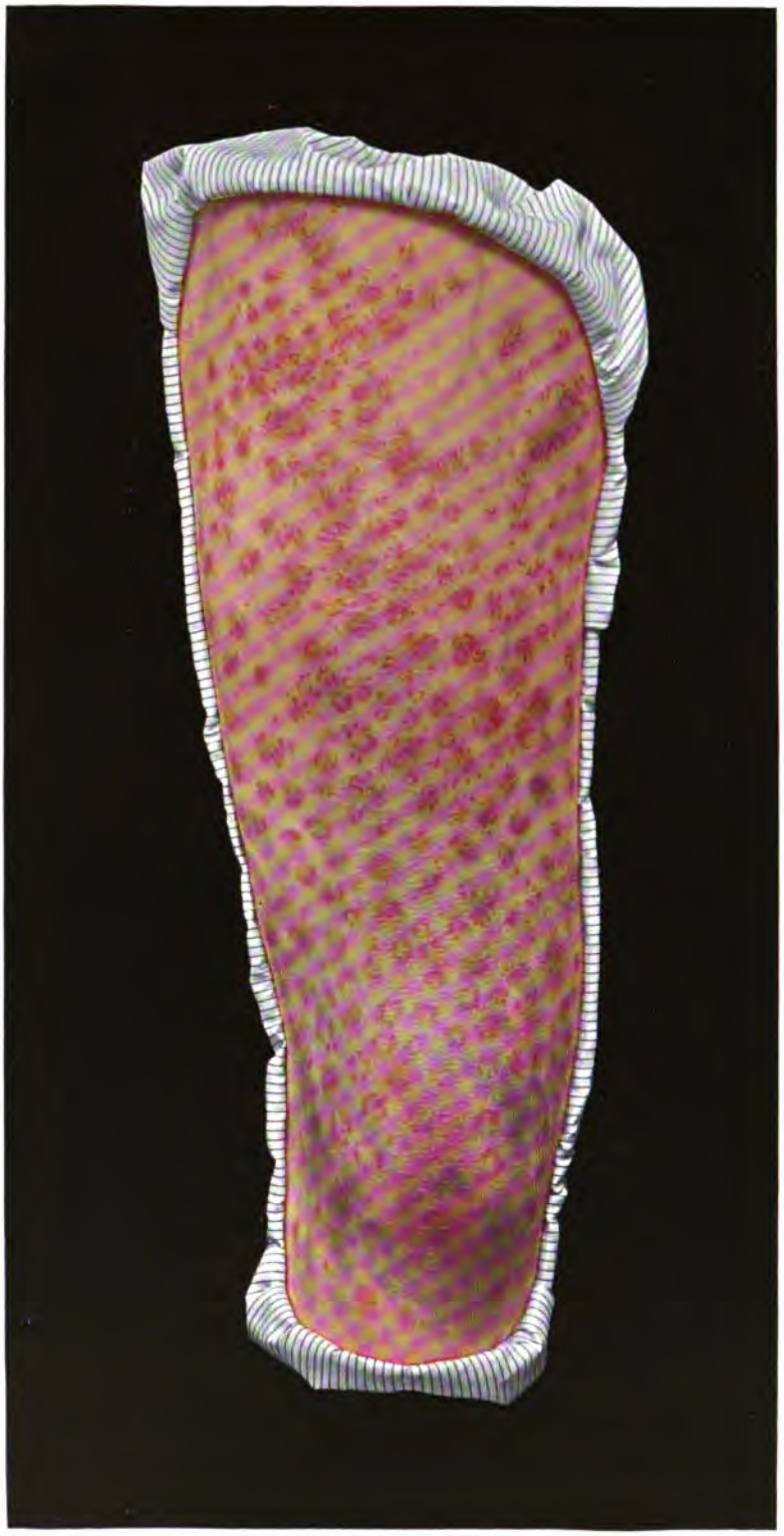
Copaiba (*Fig.* 28)

A peculiar erythematopapular universal efflorescence is often seen in gonorrheal subjects who are using the balsam. This rash serves greatly to obscure the fact that gonorrhea itself can cause an exanthem.

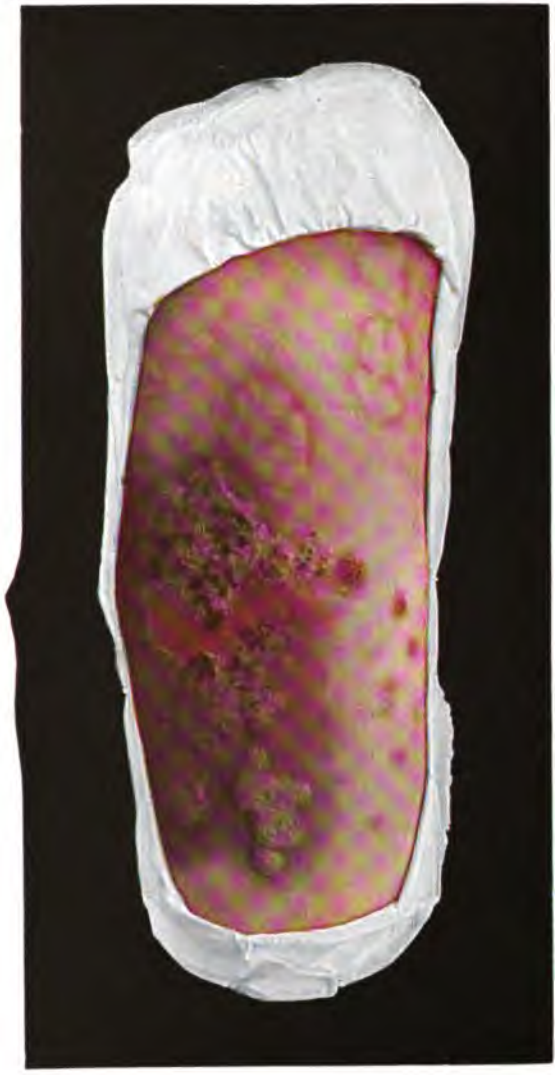
Iodide of Potassium (*Figs.* 30-31)

An acne-like eruption, much like that of bromine salts, is produced by this drug, and exceptionally the usual irregular outbreaks seen with drugs in general (bullæ, purpura, etc.). There is also a peculiar confluent, patchy lesion, somewhat similar to a bromine "carbuncle," but more indolent, which seems to be due to a congeries of inflamed follicles, and occurs on the legs as a rule. There is also a severe, proliferative, and destructive affection, much resembling the infectious granulomata, seen on the upper extremities and elsewhere. In this form a tendency to bullæ exists, and is a leading factor.

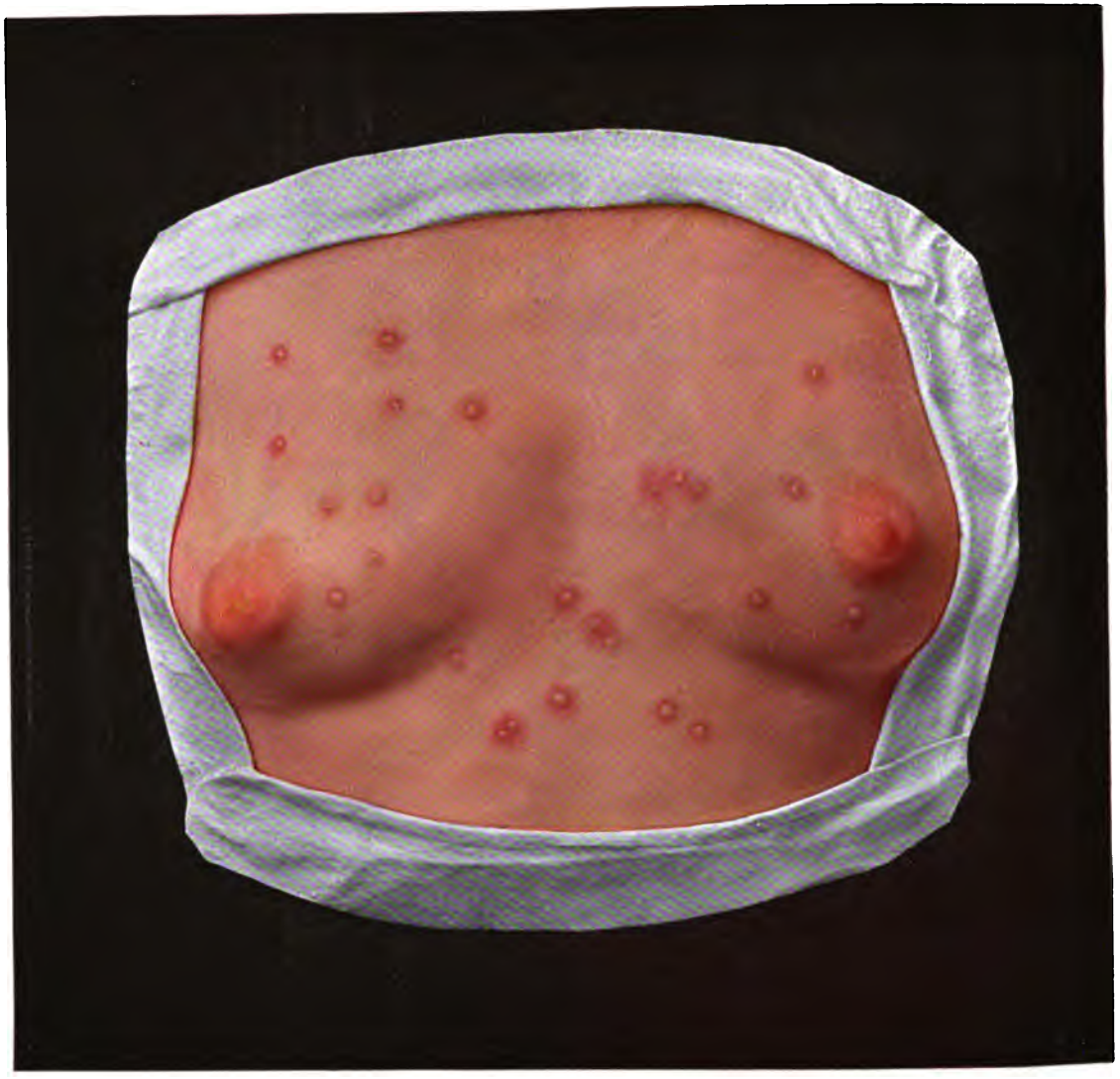
These severe forms of iodism have sometimes been brought in relation with renal and cardiac insufficiency, but have also been seen in apparently vigorous youthful subjects.



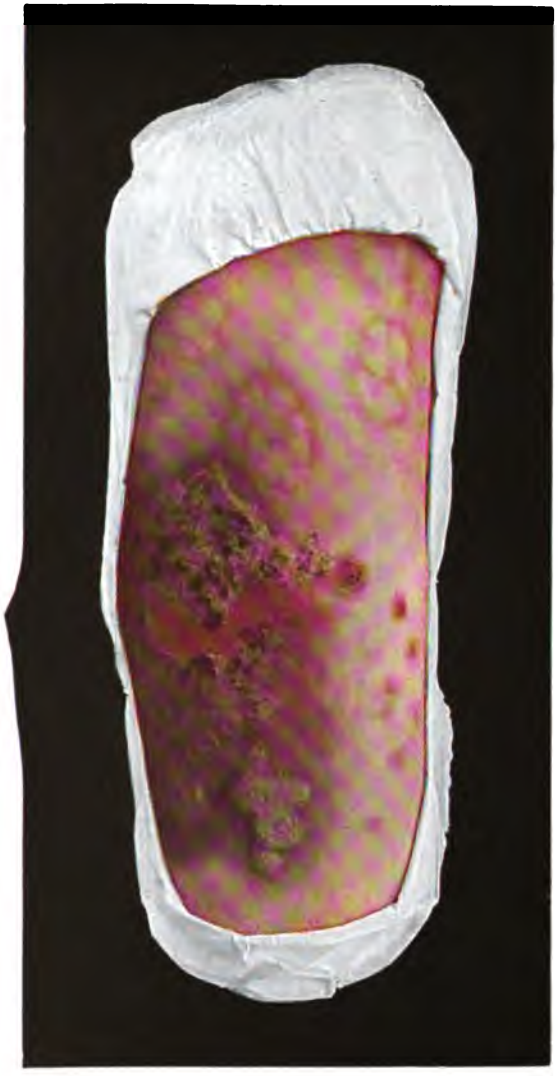
No. 28. Dermatitis medicamentosa (Copaivae).



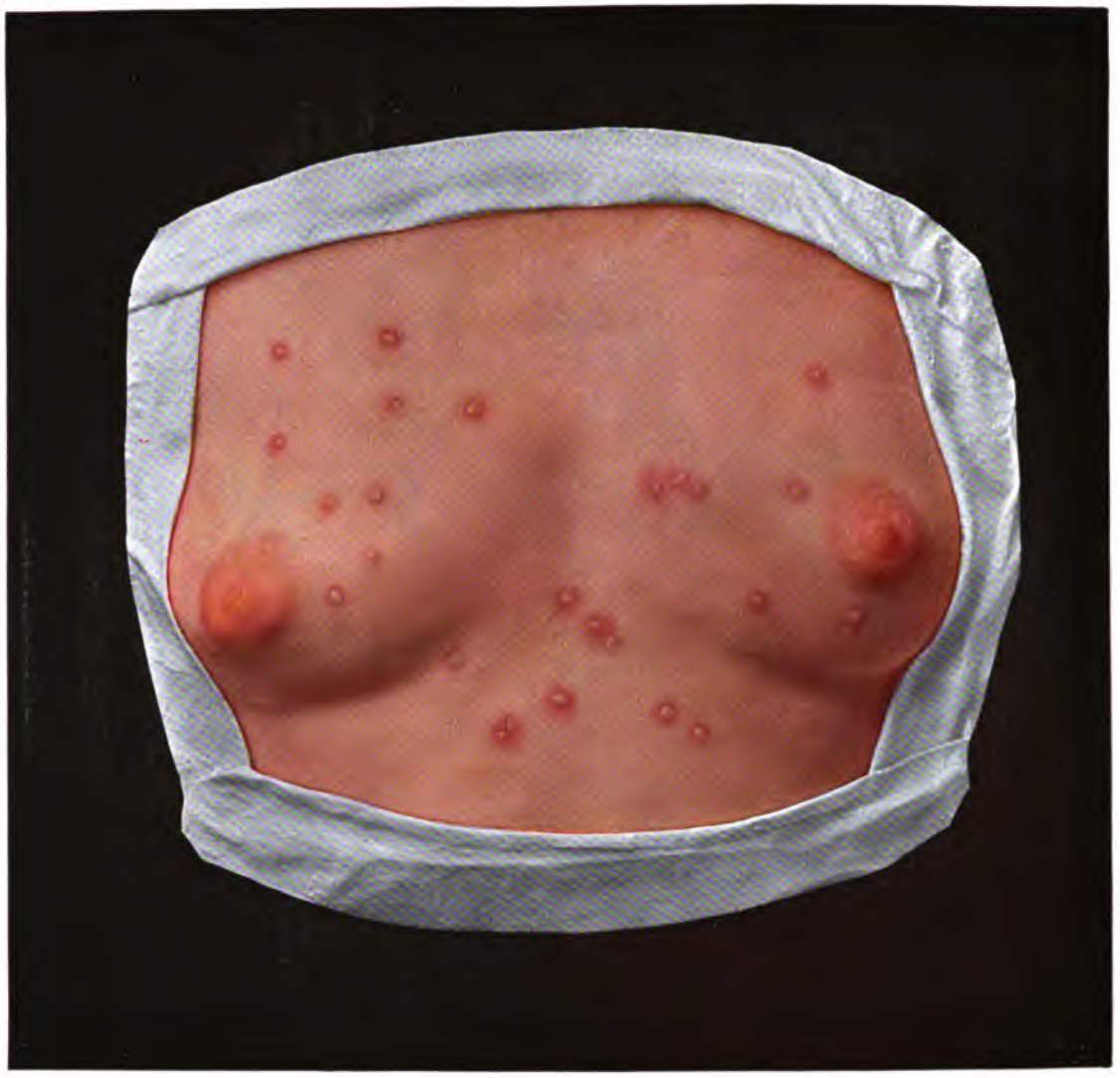
No. 29. Dermatitis medicamentosa (Bromi).



No. 30. Dermatitis medicamentosa (Jodi).



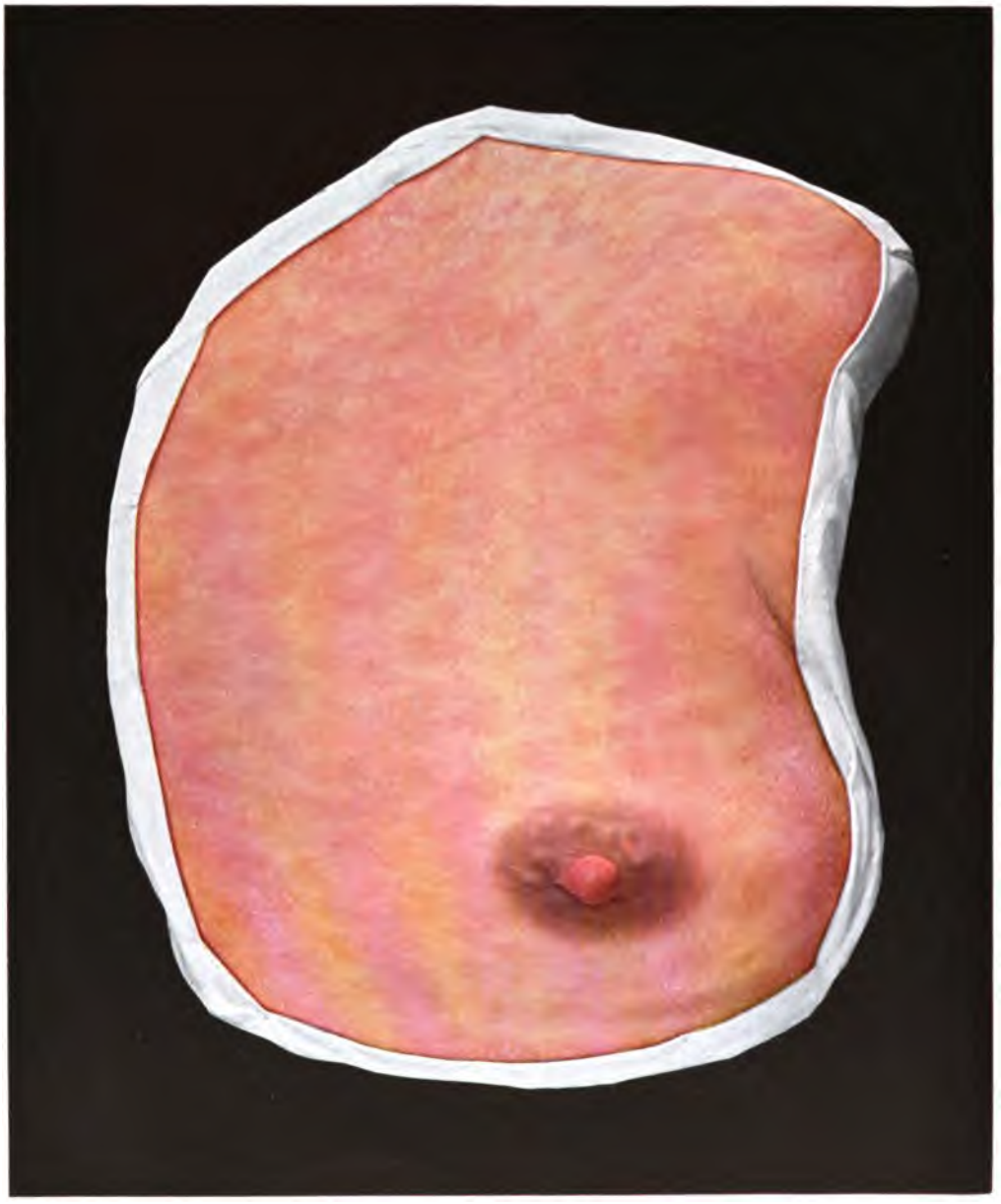
No. 29. Dermatitis medicamentosa (Bromi).



No. 30. Dermatitis medicamentosa (Jodi).

No. 31. Dermatitis medicamentosa (Jodi).

No. 32. Dermatitis medicamentosa (Chlori).



No. 33. Dermatitis medicamentosa (Hydrargyri).

Mercury (Fig. 33)

Erythematous eruptions sometimes occur after the internal administration of mercury. They may be partial or general. The rash is of a deep red color and is often accompanied by swelling and pruritus. Occasionally it may be papular or scarlatiniform, and in the latter case is generally followed by desquamation.

Quinia

Cinchonism is sometimes expressed by eruptions of the same type as those due to antipyrin.

In addition to the preceding, rashes and other manifestations have been seen after a great variety of drugs; aconite, acetanilid, alcohol (sometimes causes a desquamating erythema), antimony, benzoic and boric acids, calx sulphurata, cannabis Indica, chloroform, cubebs, digitalis, ergot (not including severe ergotism), opium (pruritus a very common sequence), phenacetin, rhubarb, salicylic acid and derivatives, sulphonal, turpentine, and numerous others.

Fig. 26. Model in Freiburg Clinic (*Johnsen*). An old medical man, who, after every dose of migranin, gets circumscribed urticarial eruptions on the buttocks, legs, shoulders and mucous membranes, which disappear after about a fortnight, leaving pigmentation.

Fig. 27. Model in Freiburg Clinic (*Johnsen*).

Fig. 28. Model in Neumann's Clinic in Vienna (*Henning*). An hemorrhagic eruption after copaiba.

Fig. 29. Model in Neisser's Clinic in Breslau (*Kroener*).

Fig. 30. Model in Lesser's Clinic in Berlin (*Kolbow*).

Figs. 31 and 32. Models in Freiburg Clinic (*Johnsen*).

Fig. 33. Model in Neisser's Clinic in Breslau (*Kroener*).

Lichen Simplex Chronicus Vidal

Synonym: Neurodermatitis

Plate **23,** FIG. 34

This affection, unlike true lichen, is an extremely chronic one. It attacks by preference the neck, the inner surface of the upper parts of the thighs, and the flexor folds of the knees and elbows. Exceptionally the abdomen may be affected. The lesions are papules of the simple lichen type, equivalent to those often seen in eczema. They are naturally discrete but readily become confluent. Well marked cases show a central area of lichenification of a grayish-brown color, which is surrounded by a brighter zone in which are present small, slightly scaly lichenoid papules. Vidal claimed that the disease is essentially a pruritus and that the cutaneous manifestations are due entirely to the results of scratching—hence an artefact, or form of dermatitis, confined largely to the pilous follicles. The deep red, angry look of the papules, if not the lesions themselves, he ascribed to rubbing and scratching.

Etiology

The disease affects only neurotic individuals and is more frequent in women than in men.

Diagnosis

This should not be difficult in a fully developed case. It is distinguished from other similar conditions by the duration, localization, and absence of marked inflammatory phenomena.

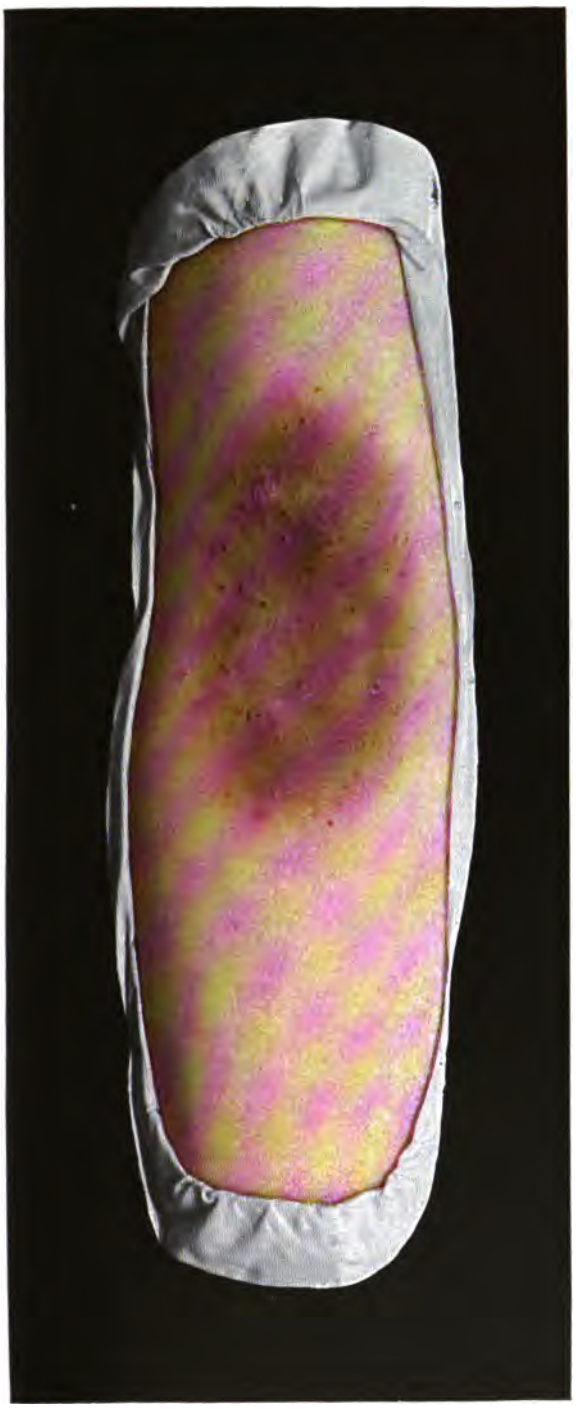
Prognosis

The condition is chronic in the sense that new outbreaks constantly occur.

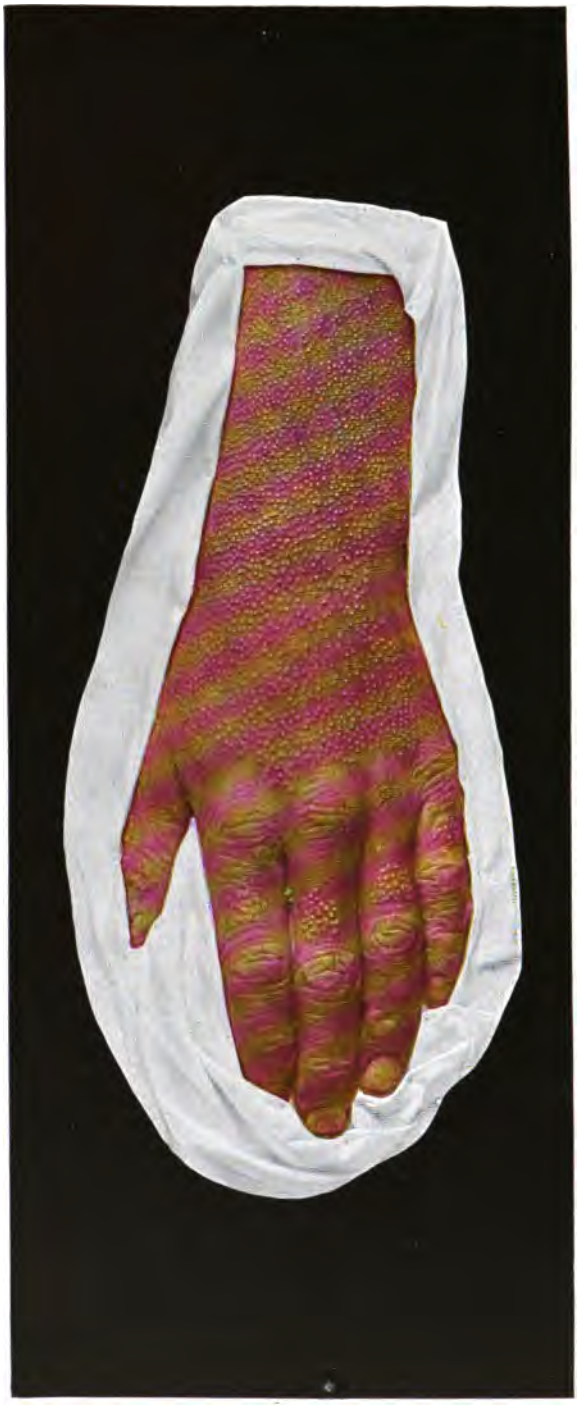
Treatment

General measures directed to the relief of the pruritus are, of course, indicated. The local treatment is essentially that of chronic eczema. In severe cases chrysarobin ointment is often of considerable benefit. Solutions of oil of cade are also useful.

Fig. 34. Model in Neisser's Clinic in Breslau (*Kroener*).



No. 34. Lichen simplex chronicus (Vidal).



No. 35. Pityriasis rubra pilaris.

Pityriasis Rubra Pilaris

Plate **23,** Fig. 35

This affection appears to be a dermatitis involving the hair-follicles. It is extremely persistent and has no particular secondary tendencies. Unlike types of folliculitis, it may involve the entire system of hair-follicles of the smooth as well as the hairy skin, producing large sheets of inflamed integument and becoming practically universal in certain cases. The separate papules, however, can always be distinguished. Considerable fine desquamation is present, hence the use of the term pityriasis. General scaling, however, does not occur.

An incipient case naturally presents a different picture from one well advanced, for, as a rule, the disease begins in a limited area, and sometimes remains there. Such areas are the scalp, and the palms and soles. In the latter localities there may be only callous thickenings, while in the scalp ordinary or seborrheic eczema may be simulated. Lesions then appear in various other localities—as the fingers, forearms, trunk, etc., where their development may be readily studied. The papules may be red or they may have a brownish or grayish color. Each follicle may be the seat of a small hard central plug as well as a hair-stump. As they become confluent the corium shows participation. It becomes thicker and less supple, and may crack slightly at the natural folds. When the entire face is involved there may be some retraction about the orifices. Alopecia does not result, but the nails may become brittle. It is one of the few dermatoses able to implicate practically the entire integument. The thickening of the skin gives the latter a coarsely granular appearance.

Etiology

The affection is rare, and its nosologic position has been much debated. It was once believed to be the same disease as lichen ruber acuminatus. A stumbling-block was the high mortality of the latter as described. But at Vienna, where fatal lichen ruber was first noted, no fatalities or even cases of marked severity are now recorded, nor has any fatal type been seen for years. For a time it was believed

that lives were saved only by the heroic use of arsenic, but this was doubtless a misapprehension, and it is not improbable that some of the recorded deaths resulted from the misuse of this drug. Arsenic now seems to have little or no power over the disease.

Nothing whatever is known as to its causal elements. It may begin in childhood, and is an affection of early life. It shows no familial incidence, and occurs in the sound and vigorous. As a hyperkeratosis, which it appears to be, with inflammatory phenomena purely secondary, it shows an affinity with psoriasis. The reaction of the corium to the epidermal process is similar. The very participation of the entire follicular system seems to connect it with some fundamental error of development.

Diagnosis

At the very outset lichen rubra pilaris might be suggested, or ordinary dandruff and callosities. As the disease develops there should be no further trouble in identifying it until it becomes universal. The papules are usually seen in a typical state on the backs of the fingers. Since the affection has been made a congener of lichen planus, it is evident that the two could be confused, especially as in lichen planus the papules are not invariably flattened. The initial lesions, however, are so typical in each affection that confusion should hardly occur. When the eruption becomes universal, psoriasis and eczema may be simulated, but the elementary lesions, and especially the evolution of the disease, should prevent confusion.

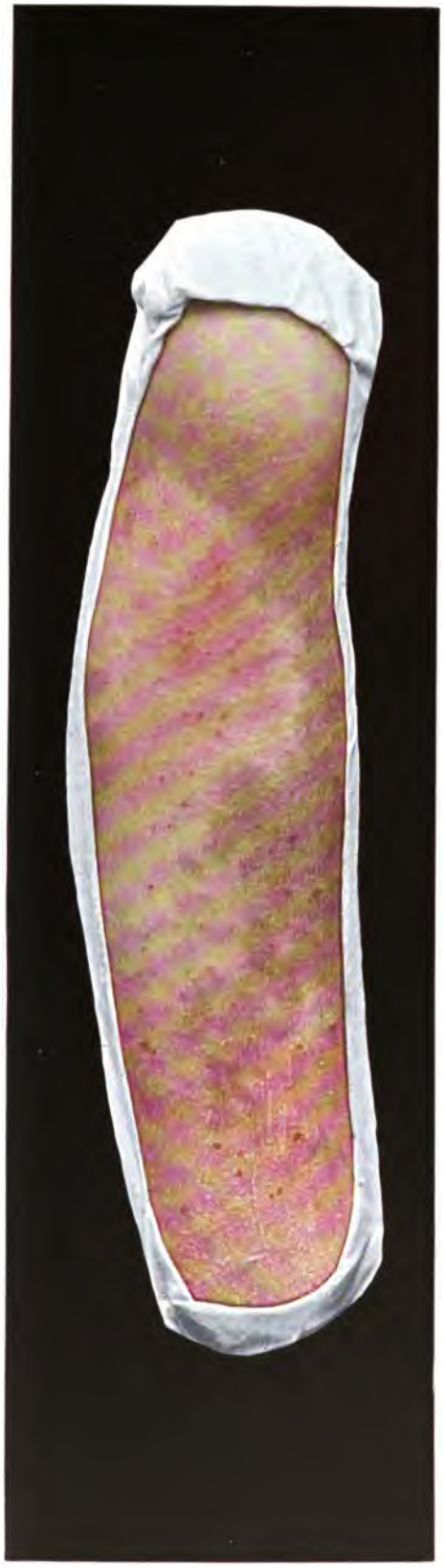
Prognosis

Arrest, spontaneous cure, cure by treatment, all occur. Recurrence also occurs, and in many cases the tendency is progressive from first to last. The general health is but seldom affected.

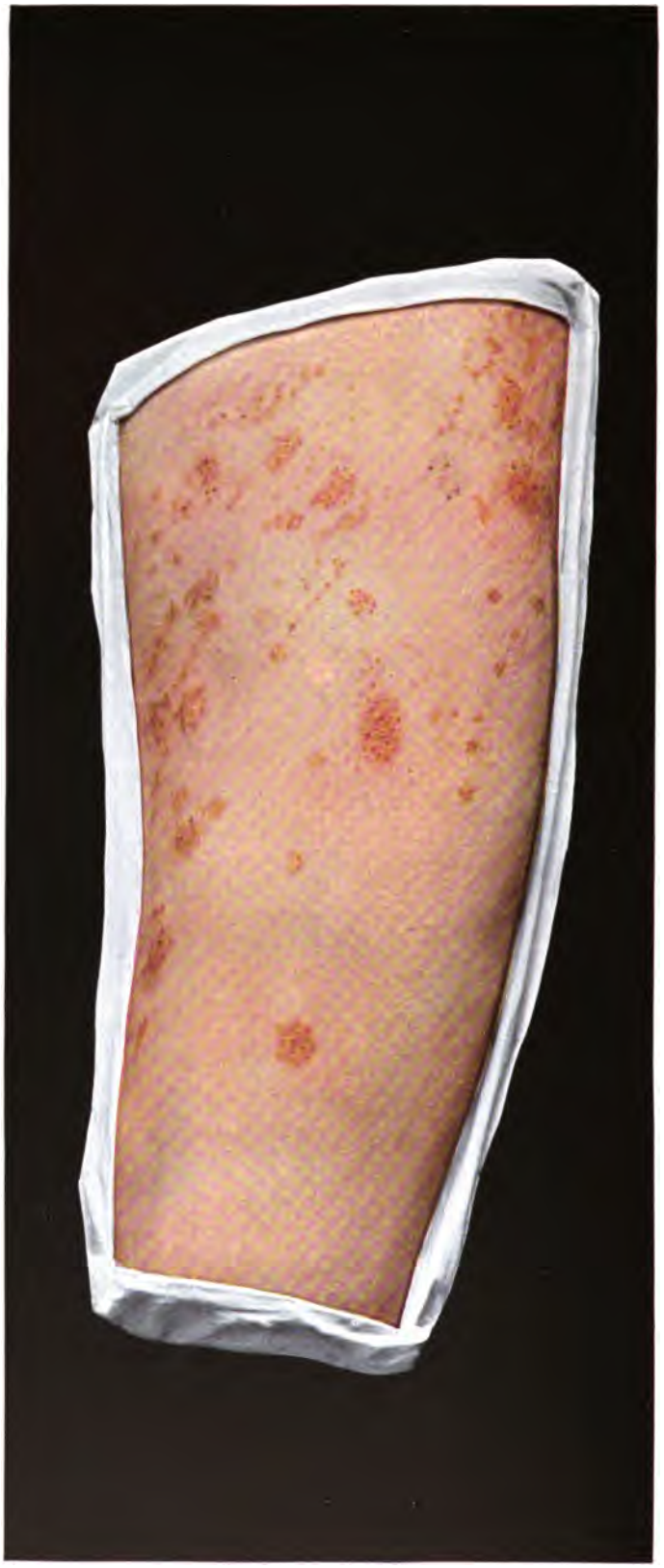
Treatment

Of treatment in the ordinary sense, with a view of a cure, there is none. The management comprises, in a general way, that of eczema, psoriasis, and ichthyosis. Alkaline baths, subsequent inunctions, and salicylic acid ointment tend to remove the overproduction of corneous matter and hence to check the inflammation. This must be persisted in, and thus conditions are made favorable for improvement and recovery.

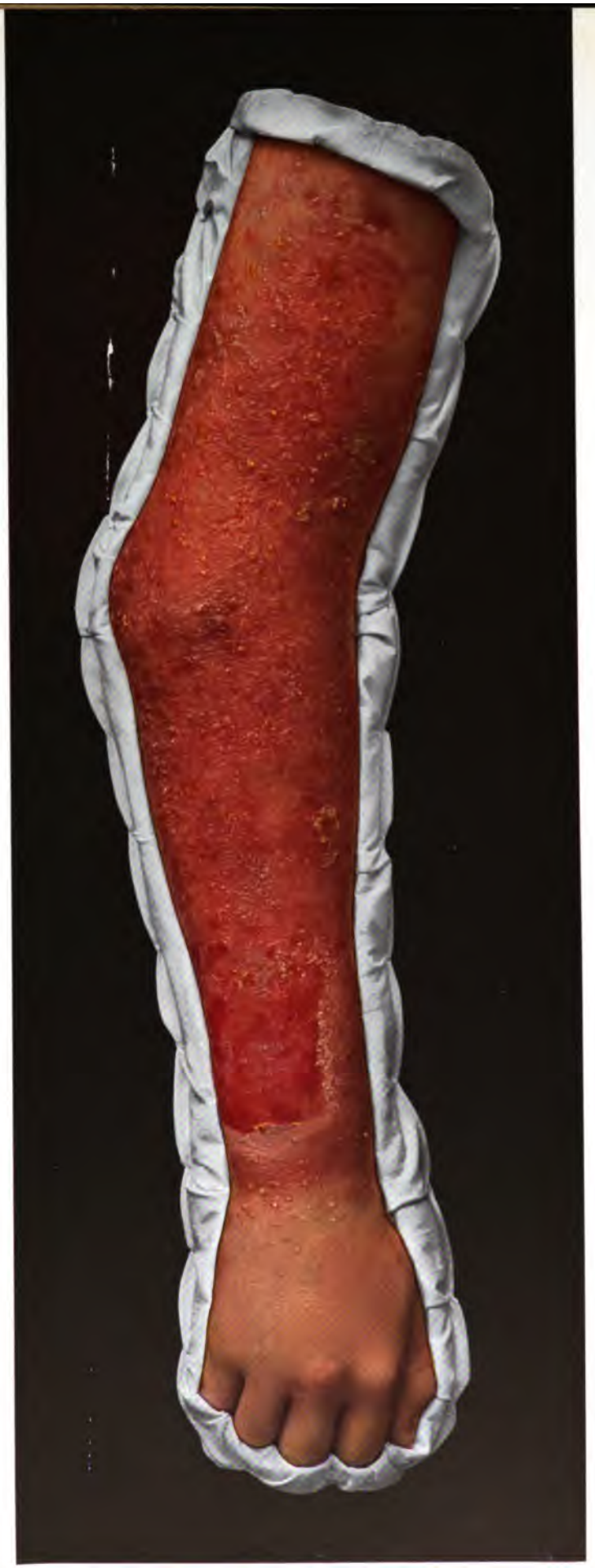
Fig. 85. Model of Dr. Bayet in Brussels.



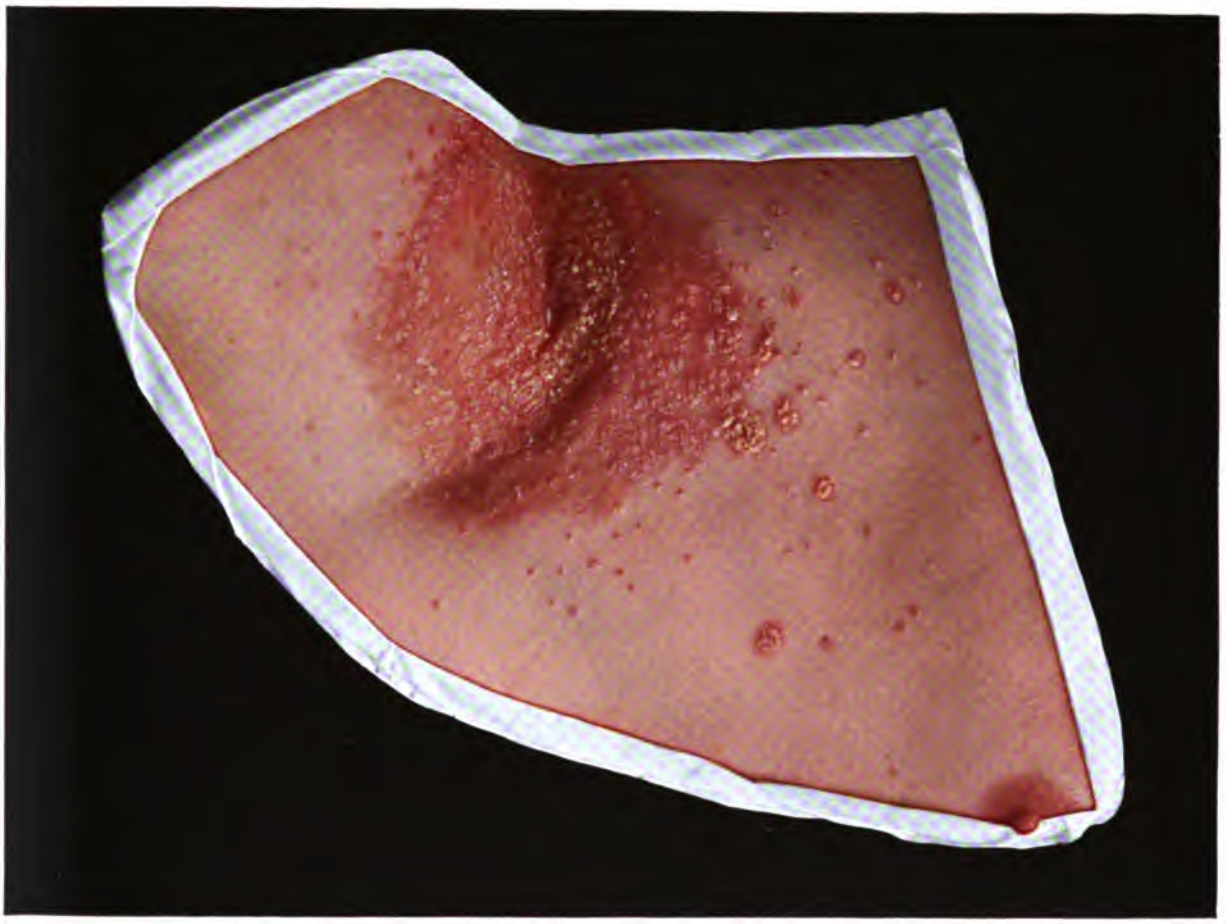
No. 36. Eczema acutum cum pigmentatione.



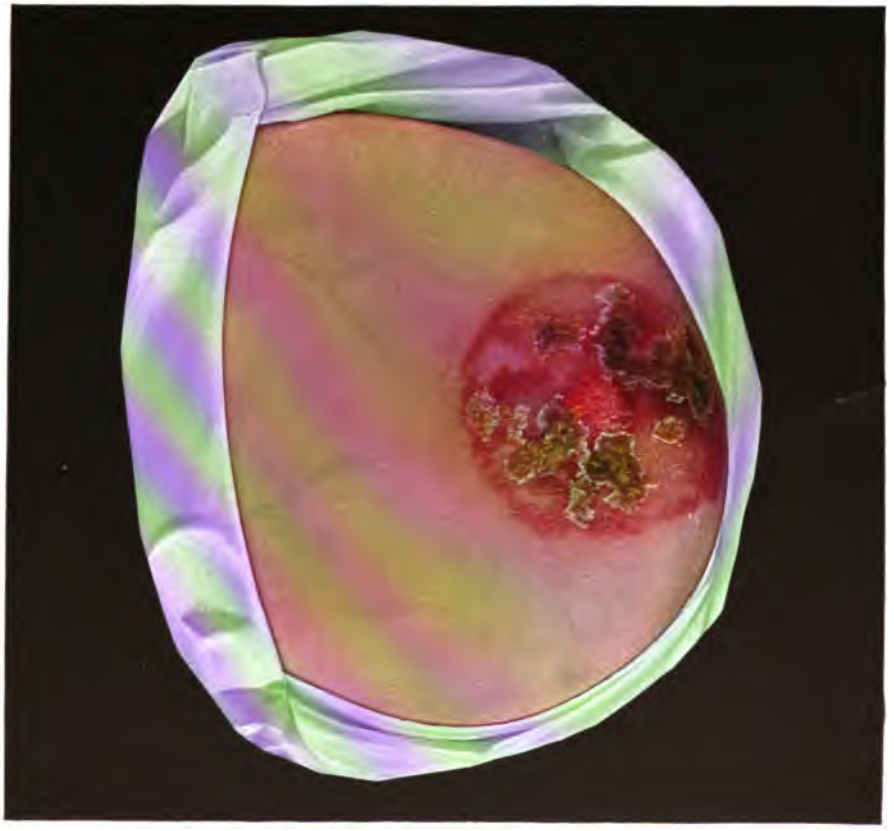
No. 37. Eczema folliculare.



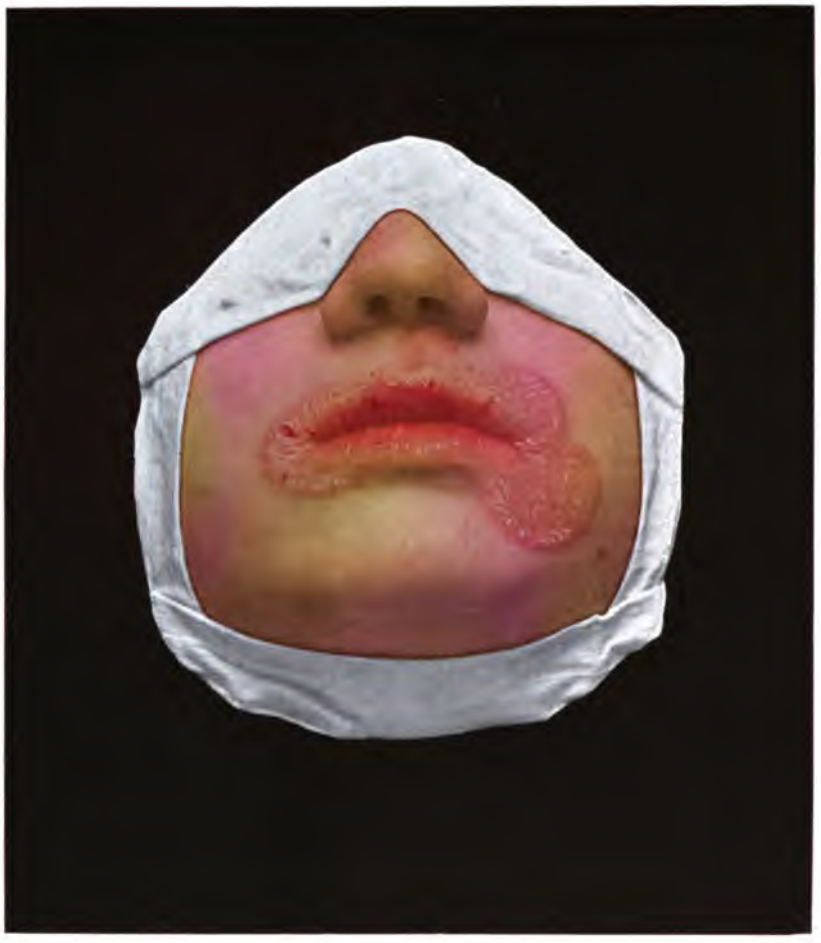
No. 38. Eczema madidans.



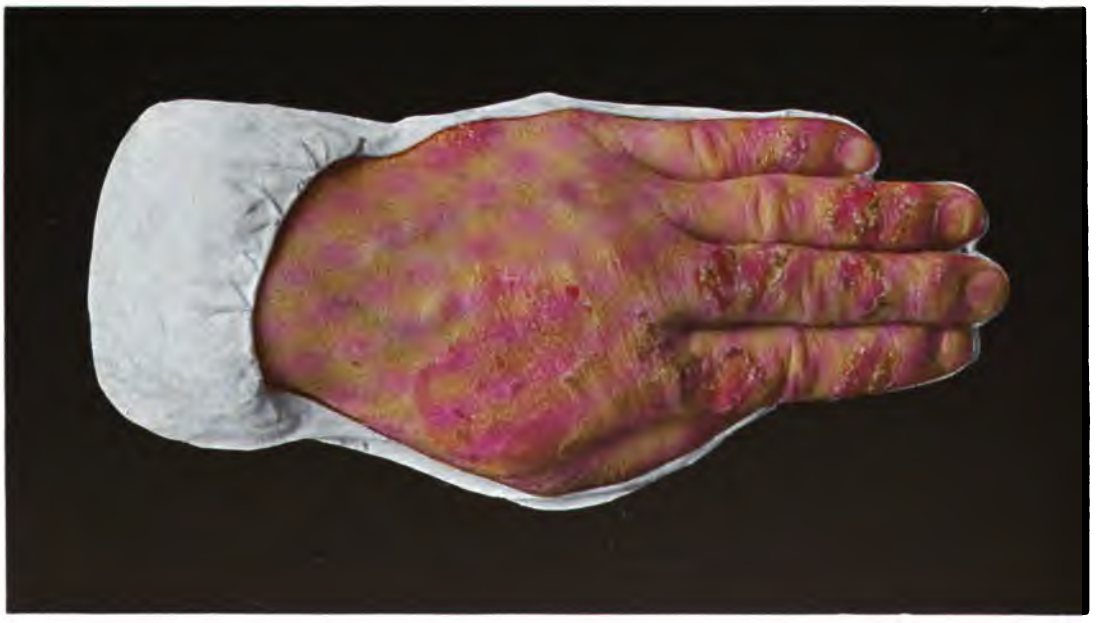
No. 40. Eczema crustosum axillae.



No. 39. Eczema crustosum mammae.

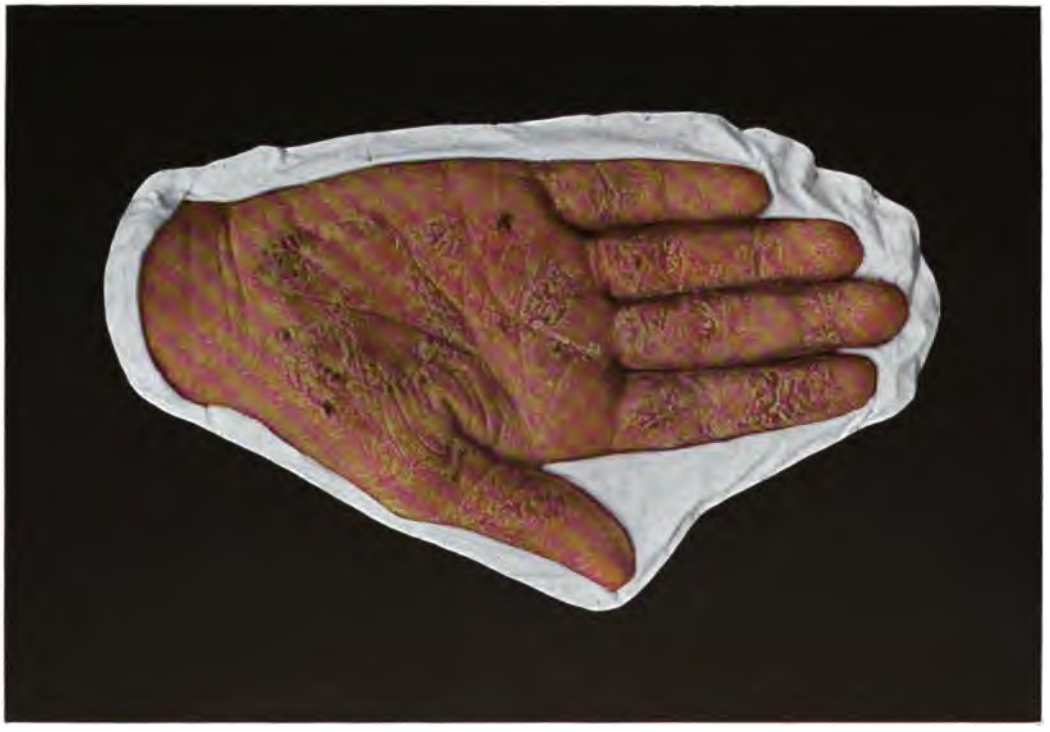


No. 41. Eczema orbiculare oris.

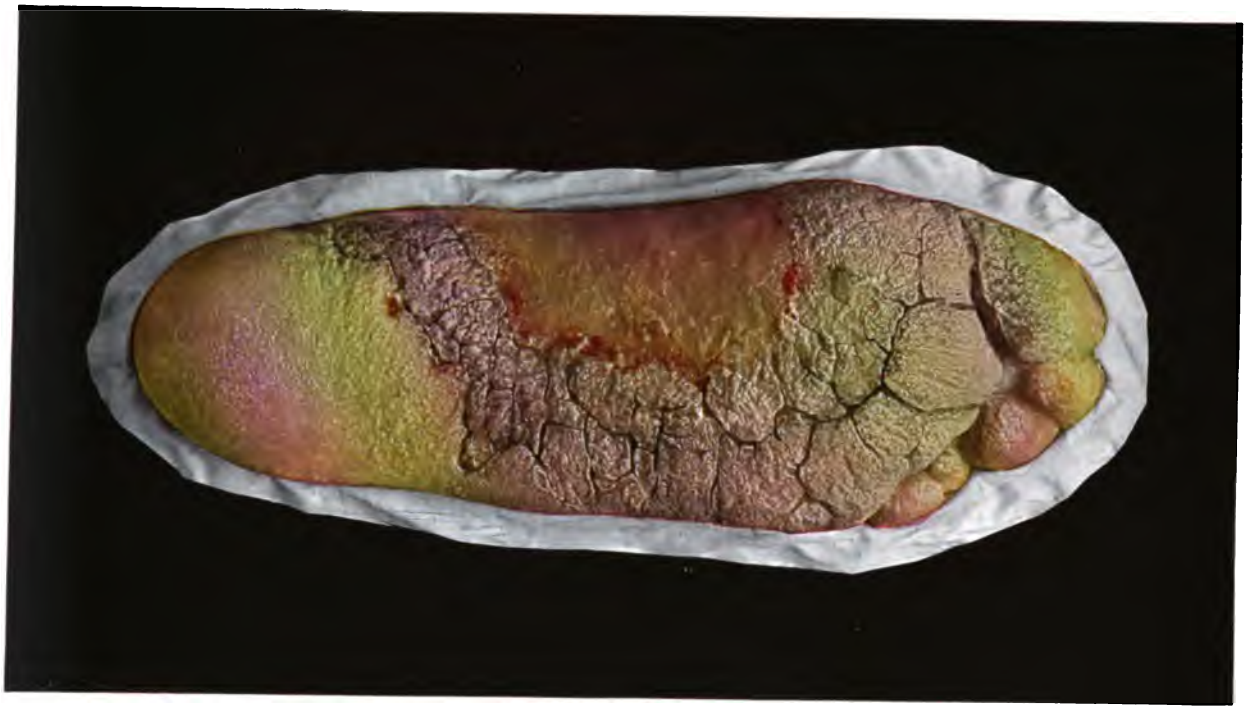


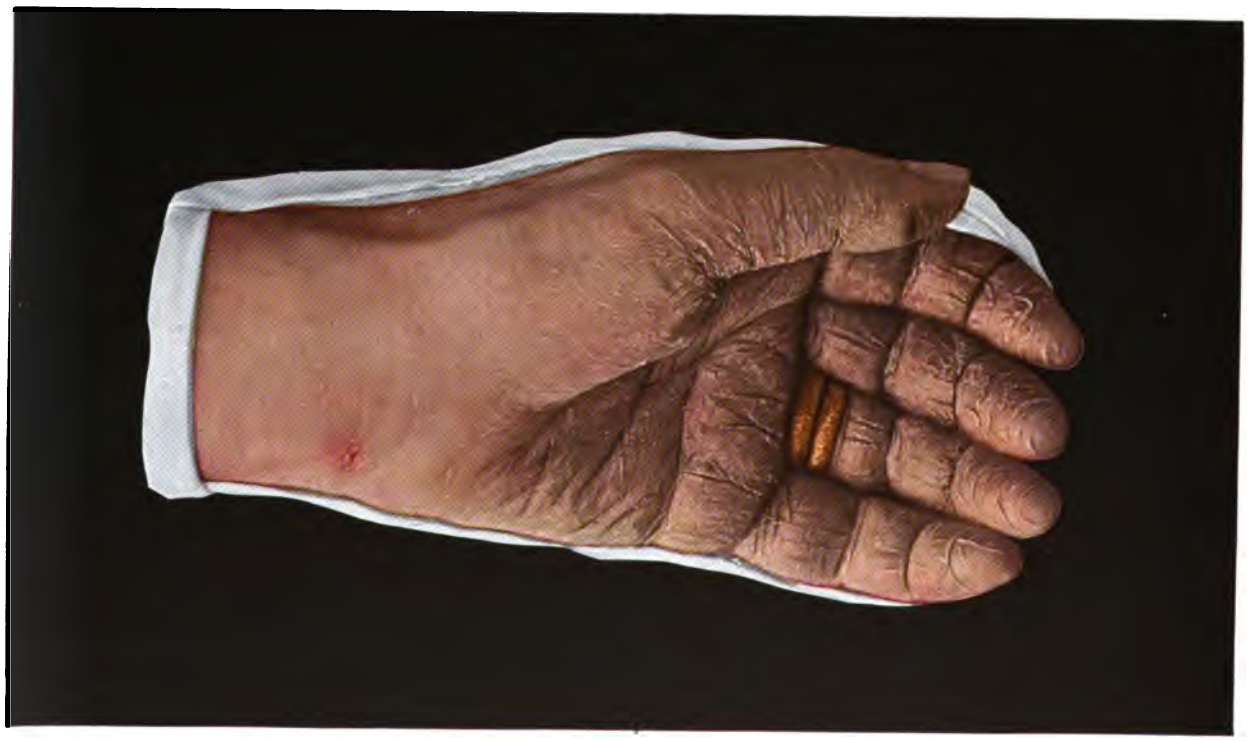
No. 42. Eczema e professione.

No. 43. Eczema chronicum squamosum.



No. 44. Eczema chronicum corneum.





No. 45. 46. Eczema chronicum corneum.

Eczema

Plates **24** to **29**, FIGS. 36 to 46

The conception of eczema has constantly undergone changes, some of them radical, since the term was first introduced by the Greeks. The "boiling over," which the word signifies, does not refer to the discharge of moist eczema, but to hot, burning pustules appearing over the entire surface—in other words, furunculosis. Eczema meant nothing else until the time of Willan, who applied the term to certain forms of dermatitis due to known irritants, characterized by minute vesicles or vesicopustules, closely aggregated and diffused over the irritated area. Thus far there was no suggestion of anything but an acute affection. Biett, and especially Rayer, isolated vesicular eczema from the artificial eruptions, and incidentally established the fact that the former could represent a chronic condition; that it was not rare but extremely common, and that itching was characteristic—an itching vesicular eruption, running chiefly a chronic course. Rayer also regarded the affection of the face and scalp, previously known as milk crust, as an acute phase of eczema. After an interval of great confusion, Devergie made another advance by retiring the vesicle as a characteristic lesion. The most essential phenomena for him were redness, a discharge which stains and stiffens linen, and violent itching. Hebra was the first to insist that eczema may never reach the weeping stage, and may exhibit only diffuse redness and desquamation or dry papulation. He isolated five clinical types—squamous, papular, vesicular, the red weeping type (eczema rubrum or madidans), and impetigenous eczema. This conception of eczema has not been radically changed since, but it became apparent in time that there were primary forms—erythematous, papular, vesicular, and pustular—and secondary forms—eczema rubrum and eczema squamosum. The condition known as eczema seborrhoicum, added by Unna to the basic forms of the disease, is considered elsewhere.

Eczema is a superficial inflammation of the skin, and the claim is made that all its manifestations may be produced experimentally, by

ity of the lesions are artefacts, produced by scratching, rubbing, etc. The extensive hypertrophic thickening of the skin in some cases of chronic eczema may be due very largely to habitual irritation. So notable is the tendency to scratch in eczema that it is often difficult to get an idea of the actual lesions of the disease. Many are of the opinion that if scratching could be prevented at the outset eczema would be a disease of trifling lesions only.

Many cases of eczema occur under such circumstances of location and form, that, in the total absence of predisposing or exciting factors, we can think only of a parasitic origin. Here belongs especially the nummular eczema on the backs of the hands, fingers, forearms, etc. The parasitic origin is even more plausible in so-called seborrheic eczema, which is seen especially on the scalp, face, sternum, intrascapular region, etc., and which exceptionally occurs anywhere on the surface. The appearance and mode of spreading of all these lesions suggests a parasitic cause.

An eczema varies considerably in its lesions according to locality. On hairy regions it is much more inclined to form pus than on smooth ones, because infection with pyogenic germs comes about with greater certainty. In folds eczema has a greater tendency to become moist than elsewhere, although the worst types of weeping eczema occur quite independently of location. Eczema of the palms and soles is naturally attended by much more thickening of the epidermal layers than in other localities. When eczema occurs in the rosacea area of the face it is often difficult to distinguish it from the latter affection.

Acute erythematous eczema of the face may cause an unusual amount of swelling, the eyelids becoming so edematous that they cannot be opened.

Diagnosis

Enough has already been said of the characteristic features of eczema, and it only remains to give the differential diagnosis. To discriminate between acute eczema of the face and erysipelas is a matter of vital importance, for it no doubt happens at times that patients with the former are isolated and treated as very sick individuals. The patient with eczema is never affected constitutionally, although very young children may present some malaise and temperature. He has no toxemia, no fever or prostration. His face may resemble greatly the erysipelas mask, but the swelling is not brawny nor is the contour sharp and indented. In eczema the color shades gradually into the normal tint.

Dry squamous eczema may greatly resemble psoriasis, but the proper diagnosis should be made in any doubtful case after a proper amount of observation.

What is true of psoriasis applies to some extent to lichen planus. When the patches first appear they may closely resemble eczema. Study of the case will probably lead sooner or later to the recognition of the peculiar primary lesion of lichen, the triangular dellated papule; just as in psoriasis, the minute papule with its disproportionately thick crust will reveal that affection. Pustular eczema is readily confounded with other pustular eruptions, but as far as the secondary pyogenic infection is concerned it is practically the same condition throughout, demanding much the same management.

Two such multiform affections as syphilis and eczema must at times simulate each other. Squamous eczema sometimes bears considerable resemblance to papulosquamous syphilides, and palmar and plantar syphilides may simulate eczema. The differential tests are the presence or absence of a history of syphilis and vestiges of this affection, the presence or absence of itching (the only syphilide which itches at times is the generalized papular eruption, a comparatively late secondary phenomenon), and finally the effect of anti-syphilitic treatment. The prefungoid eruption in granuloma fungoides is often indistinguishable from a chronic eczema.

Treatment

If there is any evidence of faulty metabolism or any derangement of the digestive apparatus, or if the diet of the patient is badly chosen, he will not be likely to recover unless these conditions are first corrected. It is a common experience that not only eczema but numerous other dermatoses, such as all forms of seborrhea and acne, pruritus, chronic urticaria, etc., tend to improve, and become aggravated under much the same conditions of general nutrition, digestion and diet. The same individual may present a number of these affections at the same time or in succession. Placed upon a restricted diet and general hygienic regimen of exercise, hydrotherapy, etc., all these conditions show a common tendency to improve. Some connection is often apparent between these dermatoses and overweight. As the subject's weight is reduced by his regimen the resistance of the skin increases. This general therapeutic indication must always be borne in mind in the management of eczema. The predisposition herein implied is not deep-seated enough to be termed an inborn diathesis, but simply the result of malhygiene and hence preventable. Even the deep-seated metabolic

anomalies of actual or premature senility are not necessarily diathetic but are due chiefly to the fact that with advancing years the subject continues to eat heartily while exercising progressively less. The nutrition in all these subjects has become so deranged that the skin may become a culture medium for ordinary pathogenic cocci and even for others which ordinarily are harmless saprophytes.

The limits of this article do not afford scope for a consideration of the general management of eczema, but under etiology the various causal factors were considered. In regard to the subject of internal medication in eczema, certain remedies are no doubt highly beneficial, although the rationale may not be clear. In any case of acute generalized eczema or acute eczema of the face large doses of acetate of potassium have been used with success for over a century.

The belief formerly prevailed that acute eczema of internal causation was dependent in some way on acute renal insufficiency, the urine being commonly concentrated. The diuretic action of the potash appeared to be succeeded by a rapid retrogression of the eruption. It has been pointed out that in renal disease we naturally stimulate the skin, and that the opposite course is rational when conditions are reversed. The extreme swelling of the eyelids in acute eczema of the face certainly appears to yield promptly to the action of diuretics.

The action of arsenic on chronic eczema is unmistakable and it is often used hypodermically to secure prompt results.

Internal remedies—sedatives and hypnotics—have some influence over the itching, enough to aid the patient in getting his sleep. Gelsemium has been recommended in desperate cases. More recently the various synthetic analgesics—phenacetin, antipyrin, etc.—have been used for this purpose.

Locally, the principal indication is to subdue the itching, for in many cases this represents almost the whole of the disease, the lesions being principally those arising from constant scratching and rubbing. It is never advisable to dissuade the patient from scratching, as this is often beyond his power. No one substance has any constant superiority as an antipruritic. Phenol, menthol, chloral, camphor, corrosive sublimate are some of the more powerful remedies used, but milder substances, like boric and salicylic acid and thymol, may be substituted.

In acute eczema the antipruritic may be combined with antiphlogistic remedies when these are indicated. The ointment or the sediment in the lotions also serves the purpose of excluding the air, which intensifies the itching. The substances used to form the

sediment are usually zinc or bismuth compounds, which have an antiphlogistic action, and are also added to the ointments. A good ointment may be made with cold cream as a base and should contain calamine, zinc oxide or bismuth subnitrate with the addition of phenol, menthol or camphor. A corresponding lotion should have as a vehicle weak lime water, and contain the same ingredients. Ointments give the best results when they can be applied with a fixed dressing, but lotions are preferred for all exposed localities for their cosmetic possibilities. Whenever the inflammatory reaction is considerable, ichthyol is indicated, and in some cases may be combined with the remedies already mentioned.

Most acute cases should recover promptly if the dressings could be made permanent and changed only once a day. In practice, however, this is seldom practicable, as patients do not wish to be invalided. Hence a compromise treatment must be devised. The patient must forego washing his skin or disturbing it in any way, excepting with a special technique. Since ointments cannot be used freely in ambulatory cases during the day, it is the custom to use lotions at that period and ointments at night. This necessitates removing the ointment in the morning, which is done preferably with suds of tar soap. The skin is then dried by simply blotting it with gauze and the lotion applied thickly. If the locality is such that the sediment wears away it must be repeated over and over. The parts are thus kept constantly protected from the air and in contact with antipruritic and sedative substances.

If a large area of integument is involved, the patient should take a medicated bath on retiring. A pound each of starch and soda may be placed in the bathtub and allowed to dry upon the skin of the patient. If the surface involved is large, ointments and lotions cannot be applied thickly. A thin layer of carbolized vaseline will answer, for the skin has already received a coating of soda and starch.

Dusting powders are also serviceable when there is a large area of skin involved, and they may also be applied over the lotions. They may be applied in all exudative cases, but possess no advantage over sediment lotions made with the same substances save for the extreme facility with which they may be applied. They are useful in hospital and dispensary practice.

While ointments cannot well be used over weeping surfaces in the ordinary state, they may be combined with starch, casein, zinc oxide, etc., in special percentages—generally equal parts of vaseline and pow-

der. If these pastes so-called are applied firmly with fixed dressings, the fluid is absorbed.

Fig. 36. Model in Neisser's Clinic in Breslau (*Kroener*).

Fig. 37. Model in Freiburg Clinic (*Johnsen*).

Fig. 38. Model in Freiburg Clinic (*Vogelbacher*).

Fig. 39. Model in Polyclinic of Prof. M. Joseph in Berlin (*Kolbow*).

Fig. 40. Model in Freiburg Clinic (*Johnsen*). Weeping and scabbing eczema of the armpits in a very fat, sweaty man, in whom the genitals and surrounding parts, the anal and the umbilical regions were also eczematous.

Fig. 41. Model in St. Louis Hospital in Paris, No. 295 (*Baretta*). Lailler's case.

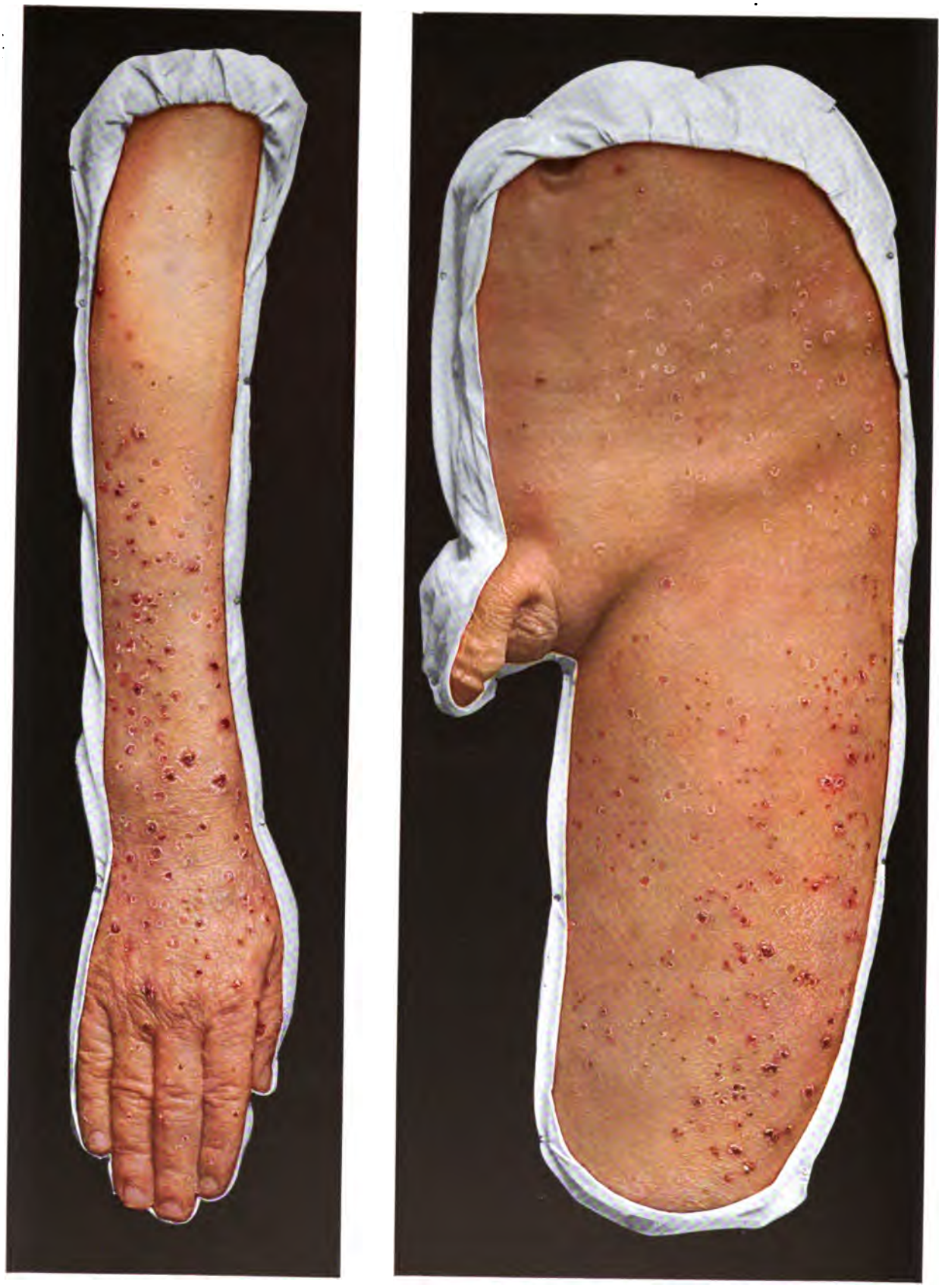
Fig. 42. Model in Neisser's Clinic in Breslau (*Kroener*).

Fig. 43. Model in Neisser's Clinic in Breslau (*Kroener*).

Fig. 44. Model in St. Louis Hospital in Paris, No. 591 (*Baretta*). Fournier's case.

Fig. 45. Model in Freiburg Clinic (*Johnsen*).

Fig. 46. Model in St. Louis Hospital in Paris, No. 770 (*Baretta*). Fournier's case.



No. 47. 48. Prurigo.

Prurigo

Plate **30,** Figs. 47 and 48

This affection is comparatively rare in the United States and the cases encountered are generally observed in immigrants from Central Europe. All attempts to connect it nosologically with papular and itching affections seen in this country are futile. While it may occur sporadically in the very poor and desolate in any country, this fact in no wise accounts for its cumulation in Austria-Hungary.

While prurigo may begin with the simple itching of an intact skin, or one with urticaria papulosa, the most intense and persistent scratching in other dermatoses does not commonly transform them into true prurigo. Even the so-called mild form of the latter retains its individuality and is not chronic urticaria.

Prurigo no doubt begins as wheals, especially in nurslings, and to a progressively less extent as the age increases. Cases are now alleged to begin in adults. Adhering chiefly to the original description of the Vienna dermatologists, it persists until the early part of the second year as a mere association of urticarial papules and wheals and scratch marks. These are at once supplanted by papules which are of the color of normal integument and represent inflammatory formations. The latter no doubt represent old urticarial papules. In the meantime itching reaches a maximum, so that sleeping becomes difficult. A scratch dermatitis develops, but not in excess of what may be seen in other pruriginous dermatoses. The prurigo papules are not of this origin, although doubtless intensified thereby.

The disease may reach an acme of severity before the third year is passed. The papules occupy chiefly the exterior surfaces of the extremities, especially the lower. The ocular appearance is sometimes deceptive, so that the sense of touch is indispensable for diagnosis. The lesions project slightly above the skin level, so that a papule very often exhibits a dot of dried blood on its summit from scratching. Trophic disturbances seem in evidence, as the skin is unnaturally dry and rough, the hair dry, etc. Further changes due to

protracted scratching are thickening of the skin, pigmentation, and at times areas of simple dermatitis not connected with the disease. One of the most characteristic symptoms is the chronic inguinal bubo commonly present in fully developed cases. Patients with chronic prurigo generally show failure of nutrition.

Etiology

Age has already been mentioned. Prurigo is never inherited, never congenital. Some familial predisposition is seen at times. There seems no doubt that it develops on an urticarial basis. As a rule urticaria of childhood has no sequelæ, and even the worst cases of prurigo are sometimes outgrown at an early period. The unknown x is involved in the problem of the transition of an urticaria into prurigo. The evidence of a dystrophic skin as the cause is not sufficient, and at present we have no clue to this factor.

Diagnosis

This is made first by the location and history of early development; the characteristic papules and inguinal buboes; the dry skin; and further by exclusion of eczema (especially in a dry skin); parasitic diseases and other forms of itching affections.

Prognosis

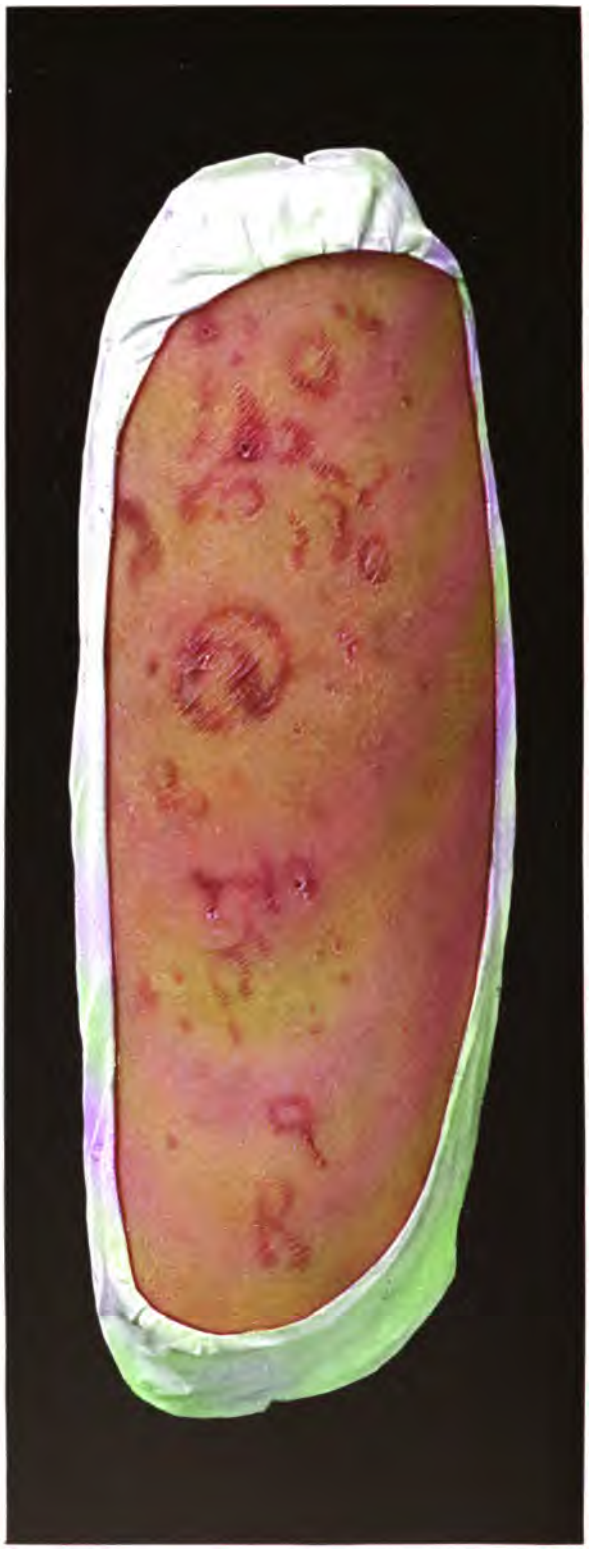
This should be guarded as to the duration of the disease.

Treatment

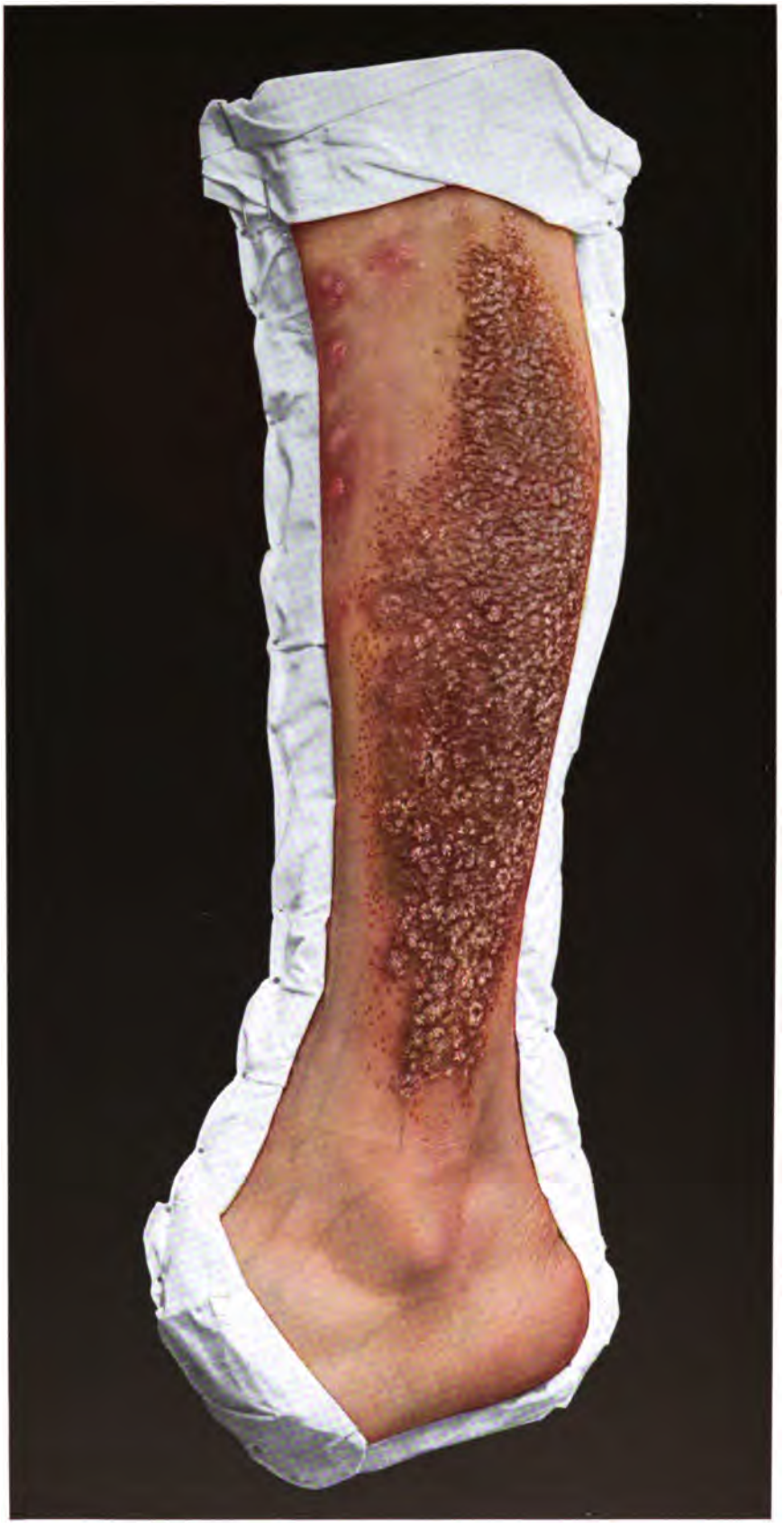
Hygienic and nutritive management represents the first line of treatment. A course of quiet with liberal feeding is rationally indicated. Pilocarpin antagonizes the dry skin. The itching and irritation require warm alkaline baths, followed by inunctions with ointments containing phenol, naphthol, tar, etc.

Figs. 47 and 48. Models in Neisser's Clinic in Breslau (*Kroener*).

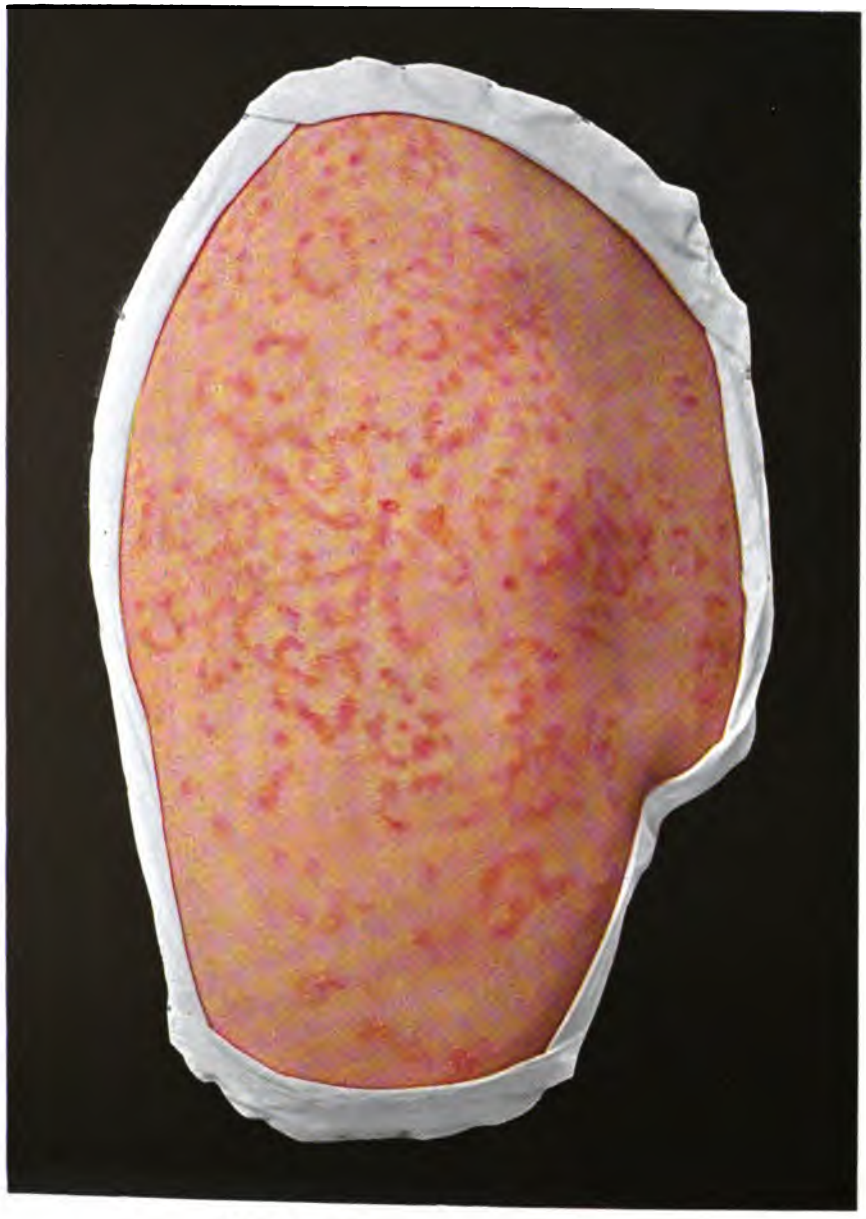
No. 49. Lichen planus.



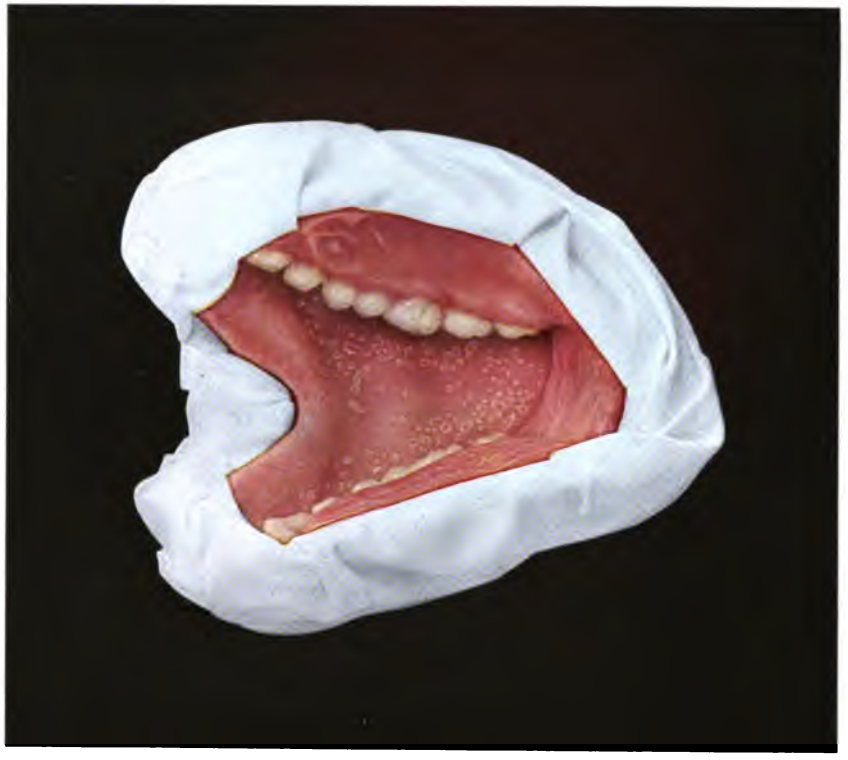
No. 50. Lichen planus atrophicus.



No. 51. Lichen planus verrucosus.



No. 52. Lichen planus annularis.



No. 53. Lichen planus mucosae oris.

Lichen Planus

Plate **31**, FIGS. 49 and 50; *Plate* **32**, FIG. 51; *Plate* **33**, FIGS. 52 and 53.

This is a unique affection, the characteristic lesion of which is a small papule, flat and triangular or polyhedral, having a minute central depression; the color is deep red or livid and a peculiar waxy lustre is evident. These papules, naturally isolated, readily coalesce to form patches and sometimes rings. In a patch it is usually possible to recognize the original papules, whose borders and depressions still persist. The patches show a slight degree of scaling. As a rule the papules are extremely persistent and are liable to come out in successive crops. There is some tendency to pale out and undergo a sort of atrophy. The typical papule is less than an eighth of an inch in diameter. In some subjects they leave deep pigmentation.

The disease is naturally disposed to a general distribution but has certain areas of preference as the flexor surface of the forearms and lower portion of the legs. The papules are sparsely distributed at first and later become more dense, but do not tend to appear at the outset in isolated groups. Exceptions occur, however. As already stated small rings of papules sometimes form or the latter may be arranged in chains. When the disease attacks the glans and foreskin or the inside of the cheeks, the papules appear closely grouped and in fact may be confined to one or both of these situations. Exceptionally they are seen on the female genitals, and the tongue. On all these mucous surfaces the papules have a whitish appearance, save in persons with exposed glans where the eruption resembles that on the skin.

Lichen often assumes a chronic form and presents a notable degree of itching, so that the effects of prolonged scratching are sometimes apparent.

Etiology

The causation of lichen planus is still a matter of conjecture. It is generally regarded as being dependent on some form of nerve disorder, and in patients presenting acute general eruptions, with intense pruritus, it is seldom difficult to obtain evidence tending to support this theory. They are often either apprehensive or depressed, and the

history of recent shock or fright is occasionally obtained. Like many another affection, lichen planus often develops in subjects whose resistance has been diminished by poor nutrition, overwork and nervous insufficiency, but there seems to be no warrant for making it a neurosis. It may occur in young and apparently vigorous subjects. Some authorities now regard the disease as an infective granuloma. The lesions appear to represent an inflammatory infiltration in the outer portion of the corium, involving some thickening of the rete and horny layer, and hypertrophy of the papillæ.

Diagnosis

While numerous other affections produce papules none of these resembles in the slightest the lesion of lichen planus. Once seen, the latter could hardly be forgotten. When, however, the lesions become grouped, the patches readily simulate chronic squamous affections. This is especially prone to occur when large patches are formed in some unusual locality, as over the knees. Lichen may also show a special tendency to form multiple scaling patches. When rings are formed showing various stages of development it may be necessary to exclude the other ringed affections, as syphilis, ringworm, etc. Confusion with lichen ruber of Hebra is doubtless due to the fact that atypical forms of each may simulate the other. Typical cases show no parallelism.

Prognosis

The affection is naturally chronic and sometimes progressive. In many cases, however, there seems to be a natural tendency to recovery. With proper treatment the outlook for recovery is always good.

Treatment

This is influenced largely by the stage of the disease and the type of eruption presented. In the acute hyperemic, disseminated variety the internal treatment should at first consist only of alkaline mixtures. The following are good examples:

℞ Potassii citrat..... 3vi
Tr. nucis vomicæ 3ii
Aquæ .....ad ℥iii
M. et ft. Sig.—Teaspoonful in water after meals.

℞ Potassii acetat..... 3iii
Potassii bicarbonat..... 3iii
Tinct. gent. comp..... 3vi
Syr. auranti dulc..... ℥i
Aquæ .....ad ℥iii
M. et ft. Sig.—Teaspoonful in water after meals.

Mild laxatives are also indicated, the diet should be restricted and alcohol prohibited. The discontinuance of tobacco is not always advisable, as it often seems to increase the nervous irritability. As soon as the acute stage begins to subside, mercurial treatment should be instituted, for there is now but little doubt as to the superiority of mercury over all other drugs in the treatment of this disease. In many cases its effect is almost specific. The results, however, are not always uniform. It should be administered in increasing doses until either improvement in the eruption occurs, or beginning mercurialism is noticed. A fairly accurate method of administration is in the form of one-grain tablets of hydrargyrum cum creta. From six to twelve of these may be taken daily, according to the effect produced. Mercury can also be advantageously given in the form of bichloride, $\frac{1}{32}$ to $\frac{1}{12}$ of a grain three times a day. This is best given in a mixture, but in certain selected cases it may be administered intravenously.

Should the treatment with mercury be unsatisfactory, recourse may be had to arsenic, which must also be given in full doses, but never in the acute stage. It can be administered in the form of Fowler's or Pearson's solutions, in doses of from five to twelve minims three times per day. A more convenient method of administering arsenic is in the form of tablets or pills. A tablet containing $\frac{1}{30}$ of a grain of sodium arseniate may be taken after each meal, and the dose increased by one every three days until three are taken after each meal, then return is made to the first dosage. Occasionally the Asiatic pill, which contains $\frac{1}{40}$ of a grain of arsenious acid, is useful. Intramuscular injections of cacodylate of sodium have been recommended, and recently there have been a few favorable reports from the use of salvarsan intravenously administered.

In acute cases, where arsenic is contraindicated, Pringle recommends the wine of antimony in fifteen-minim doses, three times a day. The same writer has reported rapid subsidence of inflammation and complete cessation of itching in an acute case after the use of antipyrin in ten-grain doses given three times a day. Bulkley uses chlorate of potassa, five to ten grains in water, after meals, followed half an hour later by two to five drops of strong nitric acid, well diluted. Hartzell has had favorable results from the salicylate of soda. Constitutional treatment should be continued for some time after the eruption has disappeared. The nervous exhaustion that not infrequently follows a severe attack of lichen planus is best overcome by the use of strychnine. Tablets of strychnia nitrate of $\frac{1}{40}$ of a grain may be given three times a day. The glycerophosphates of lime and soda are also

useful, and the following formula, in which they are combined with [illegible] is an [illegible]:

℞ [illegible]
[illegible]
[illegible]
M. [illegible]

[illegible] treatment [illegible] should be soothing, and consists in the main of [illegible] such as [illegible], or:

℞ [illegible]
[illegible]
[illegible]
[illegible]
M. [illegible]

Alkaline [illegible]

[illegible] compounds, such as [illegible] may be used. [illegible] In the chronic [illegible] may be applied.

℞ [illegible]
[illegible]
[illegible]
M. [illegible]

In the [illegible] frequently [illegible]

The following [illegible]

℞ [illegible]
[illegible]
[illegible]
[illegible]
M. [illegible]

A [illegible]

[illegible]

[illegible]

[illegible]

[illegible]

useful, and the following formula, in which they are combined with strychnia, is an excellent one:

℞ Strychnia nitrat..... gr. 1/64
Calcii glycerophosph.,
Sodii glycerophosph.....āā gr. iiss.
M. et ft. cap. Sig.—One capsule three times a day before meals.

Local treatment in the acute stage should be soothing, and consists in the main of cooling lotions, such as the calamine and zinc lotion, or:

℞ Pulv. boracis ..... ʒii
Tr. camphoræ ..... ʒiii
Glycerine ..... ʒii
Aquæ aurantii florum .....ad ℥viii
M. et ft. lotio.

Alkaline and bran baths are cooling and generally grateful.

As soon as the acute symptoms subside, mildly antiseptic ointments, such as ammoniated mercury 2½% or salicylic acid 5%, can be used. Tar, in the form of lotion, ointment or paste, is useful. In the chronic type the following ointment, recommended by Unna, may be applied:

℞ Hydrargyri bichlorid..... gr. iv
Acid. carbolici..... ʒi
Ungt. diachyli..... ℥i
M. et ft.

In the hypertrophic, verrucous variety, appearing most frequently on the legs, the treatment should be stimulating; a ten to twenty per cent. salicylic acid and rubber plaster acts very well.

The following collodion paint is also useful:

℞ Acidi carbolici..... gr. x
Hydrargyri bichlorid..... gr. iii
Creosote ..... ♏ iii
Collodion ..... ℥i
M. et ft.

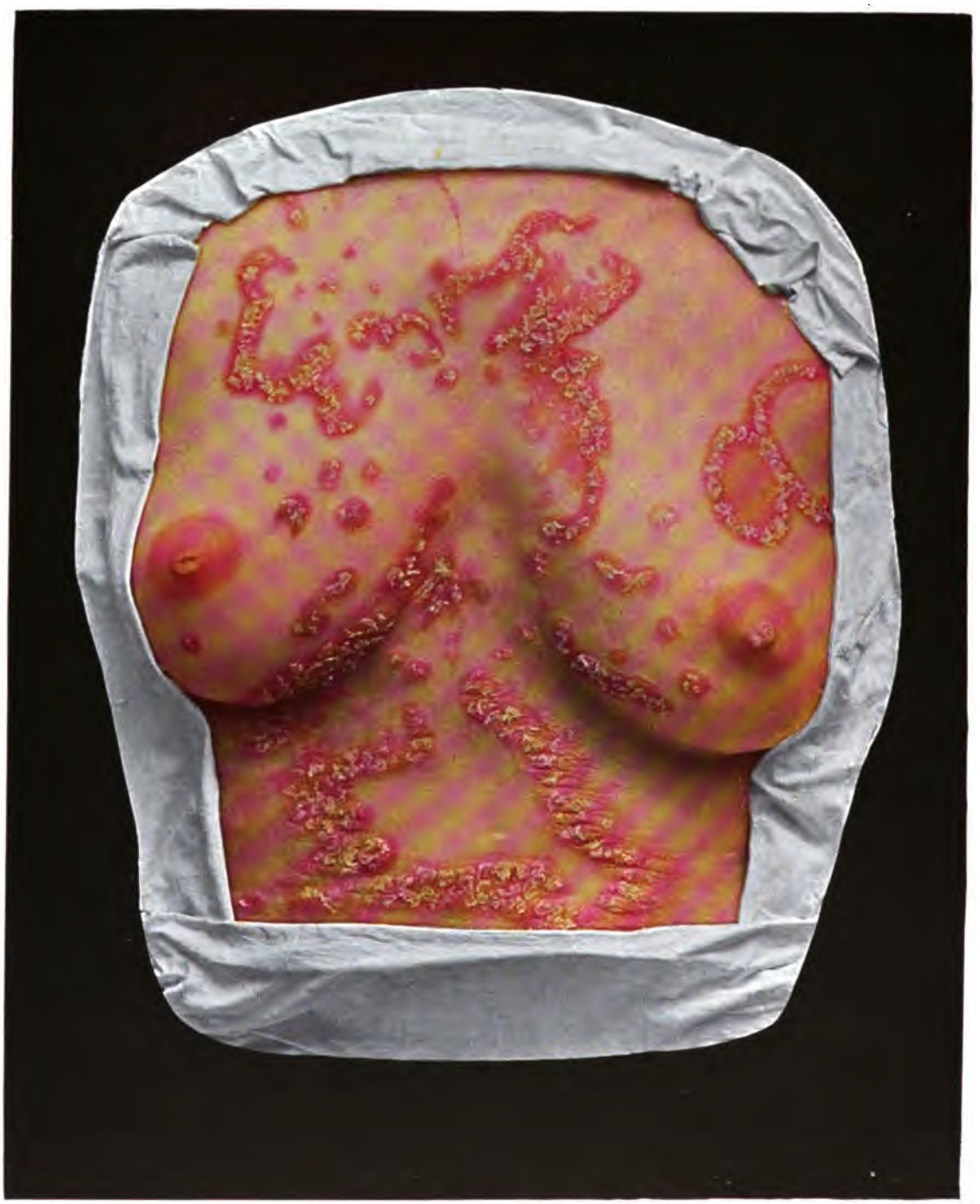
A mercurial plaster is sometimes of benefit. In particularly intractable cases the X-rays are occasionally of service.

Figs. 49 and 52. Model in St. Louis Hospital in Paris, Nos. 1898 and 1554 (*Baretta*). Hallopeau's case.

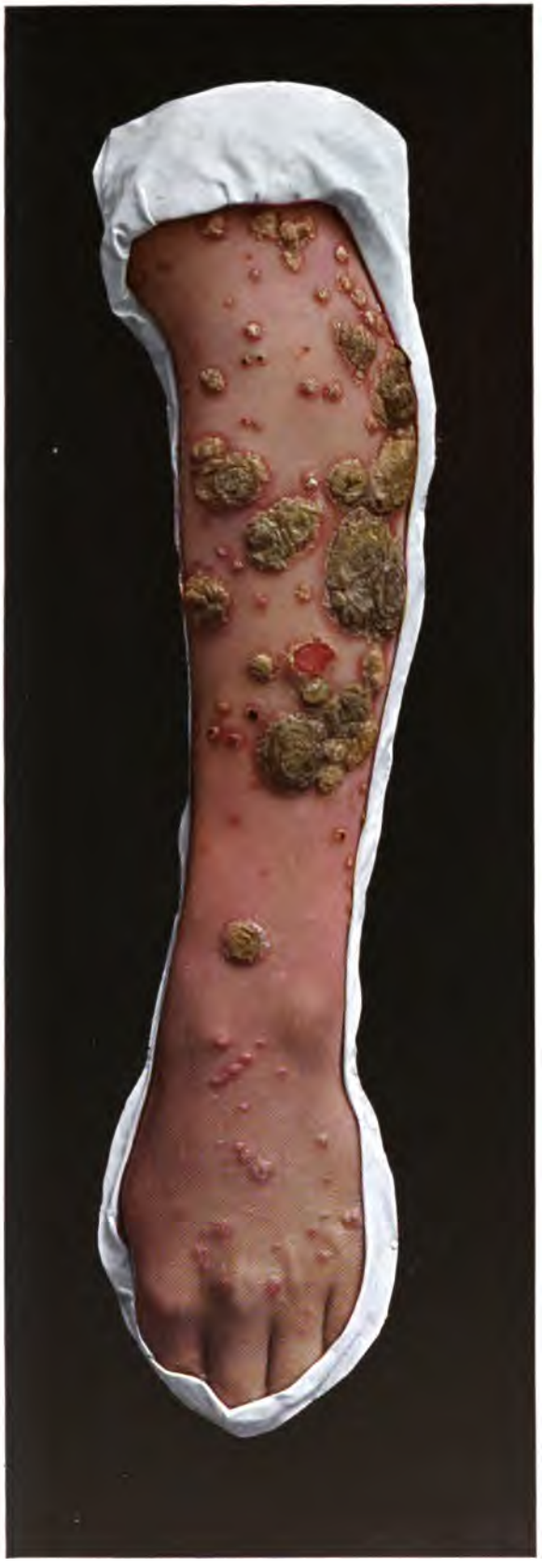
Fig. 50. Model in Neisser's Clinic in Breslau (*Kroener*).

Fig. 51. Model in Freiburg Clinic (*Vogelbacher*).

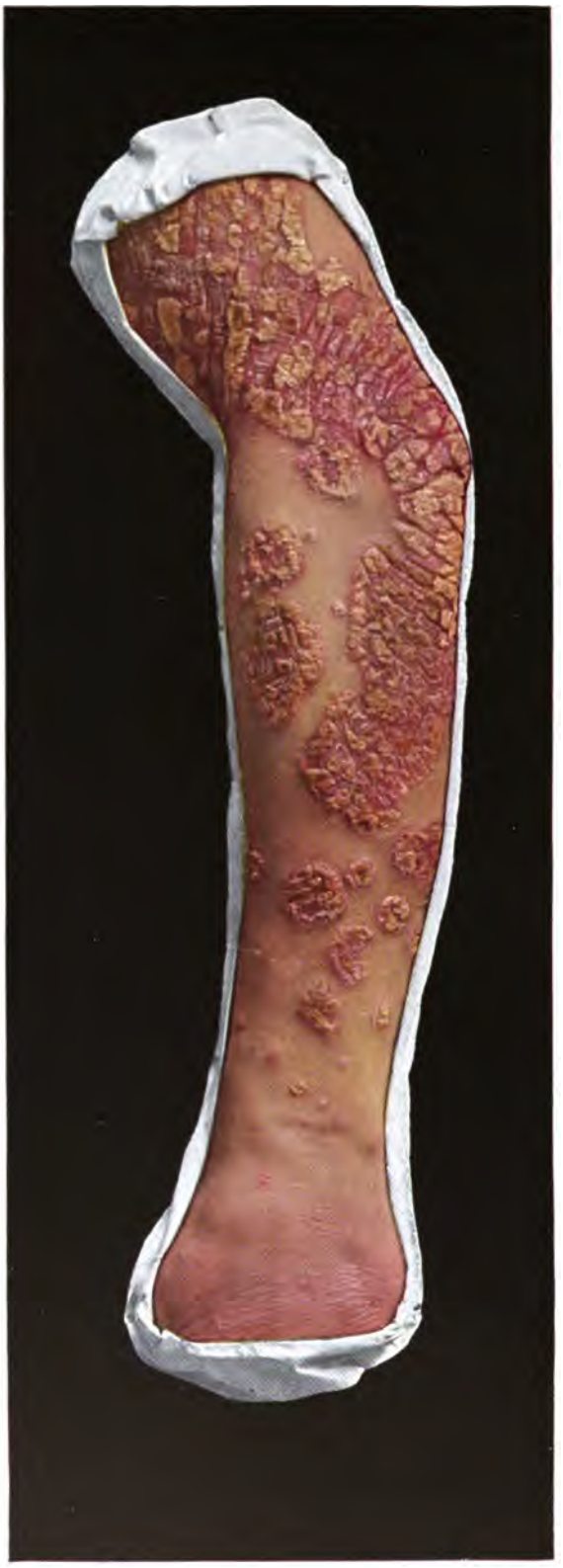
Fig. 53. Model in Municipal Hospital in Cologne. Prof. Zinsser.



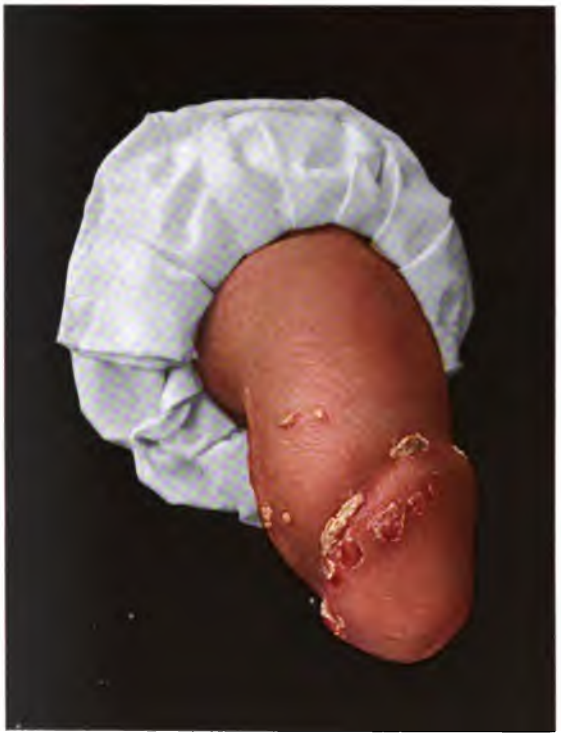
No. 54. Psoriasis gyrata et serpiginosa.

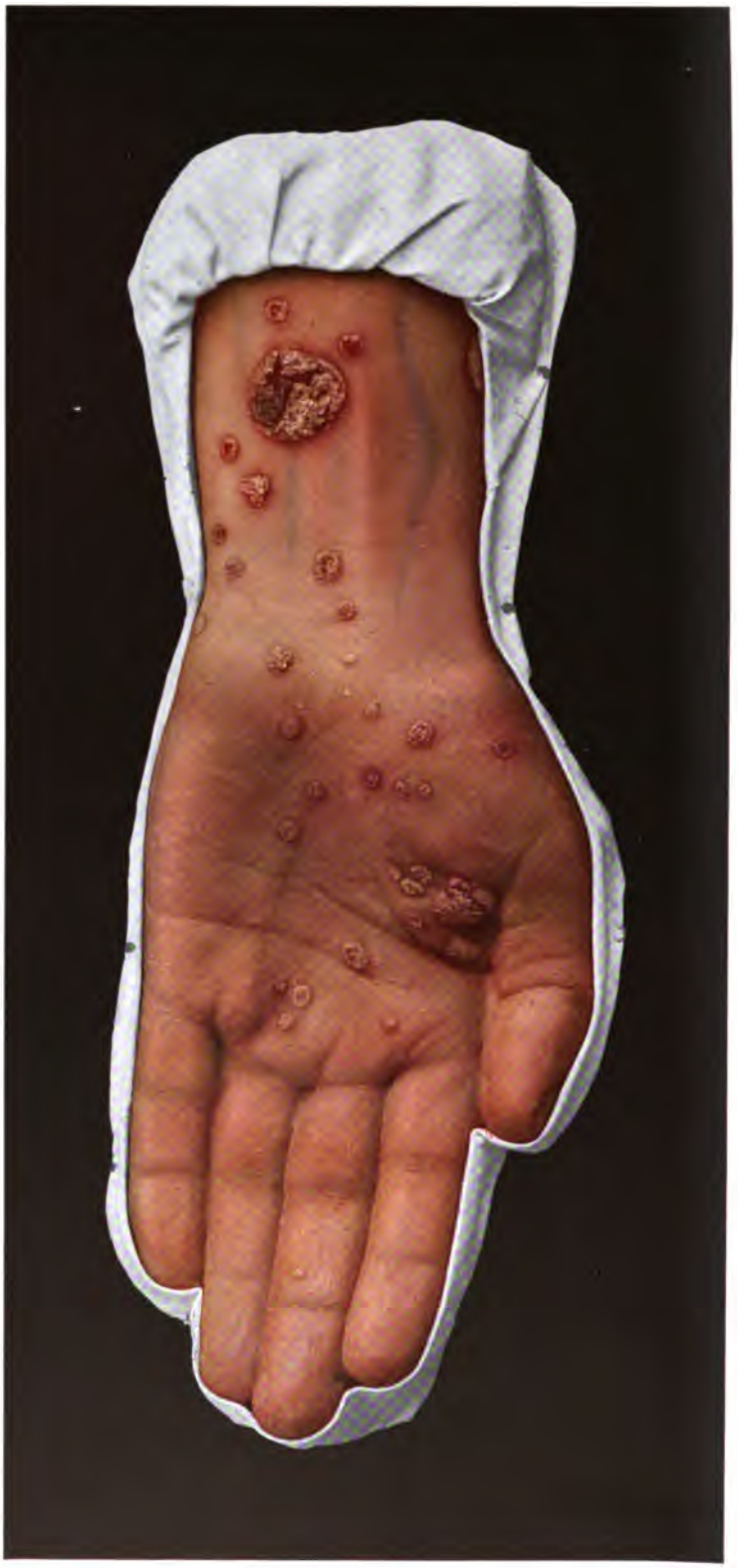


No. 55. Psoriasis vulgaris guttata et ostracea.

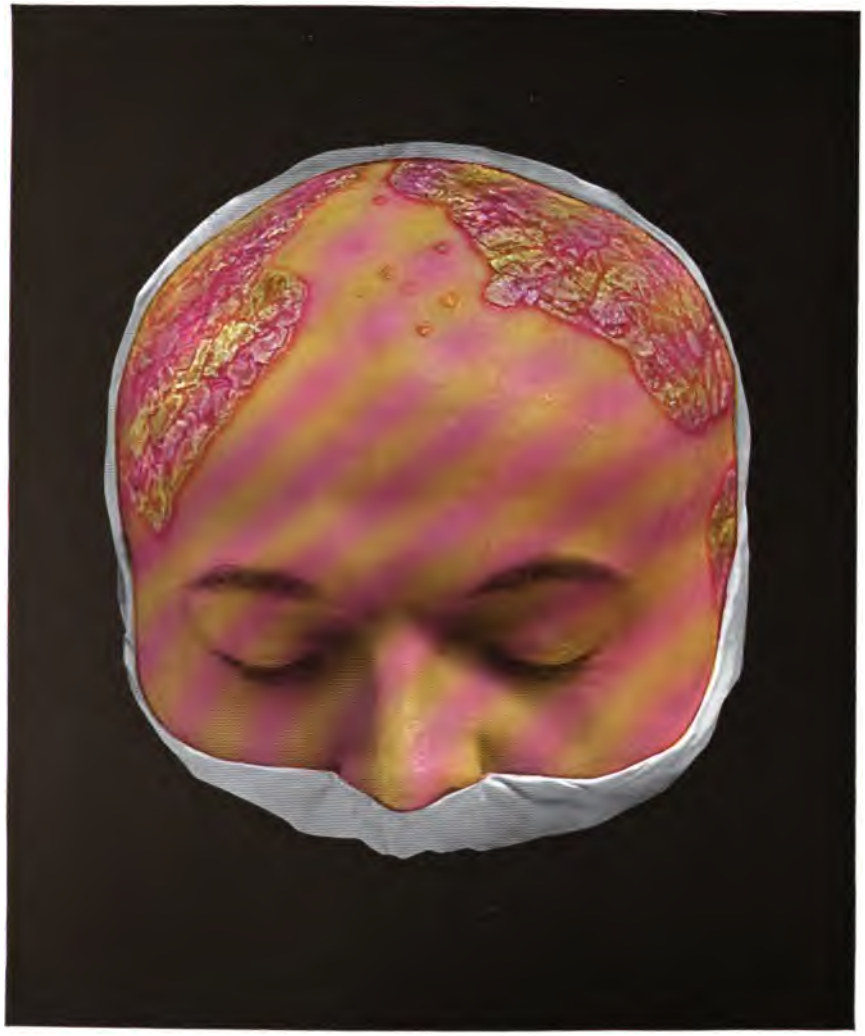


No. 56. Psoriasis vulgaris.

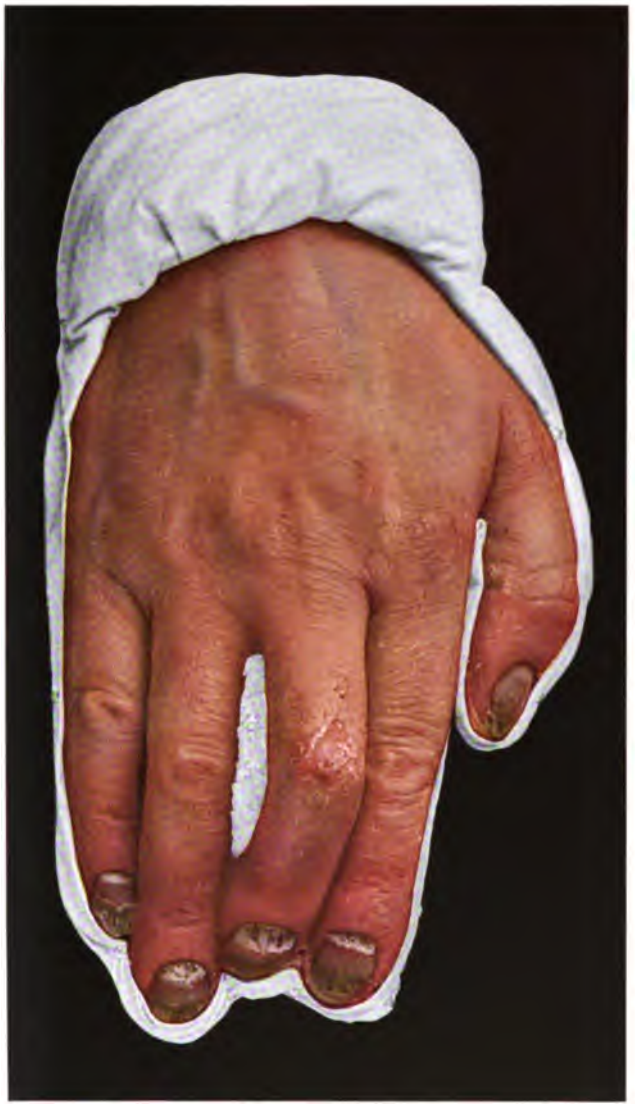




No. 57. 58. Psoriasis vulgaris.



No. 59. 60. Psoriasis vulgaris.



No. 61. Psoriasis vulgaris unguium.

No. 62. Psoriasis vulgaris rupioides.

Psoriasis

Plate **34,** Fig. 54; *Plate* **35,** Figs. 55 and 56; *Plate* **36,** Figs. 57 and 58; *Plate* **37,** Figs. 59 and 60; *Plate* **38,** Figs. 61 and 62

This affection, because of its characteristic, scaly, white spots, and its intractable character, is believed to have been comprised in the original conception of leprosy, and perhaps to have made up much of biblical leprosy. The superstitions which have come down to us attached to the scaliness of leprosy and the contagious nature of the scabs are hardly reconcilable with what we know of leprosy to-day. On the other hand, the affection known to the Greeks as "alphos" applies in a measure to vitiligo, a white but not a scaly dermatosis. The very word lepra implies a scale, and it must be remembered that the Greek word for true leprosy was elephantiasis. Psoriasis may therefore have been the lepra of the Greeks, but this was not true leprosy. The dissimilarity between these affections is very marked, and the confusion is due entirely to ancient etymological misconceptions.

Psoriasis in its inception is a sharply individualized disease. The first lesion to appear is a small red papule the size of a pin-head or point. This is surmounted by a fine silvery scale. When this minute scale is picked off a hyperemic base is disclosed. This has been aptly termed the pathological unit, for from it all the other lesions of the disease are derived. There is no other dermatosis which, beginning as a mere point in the skin, presents at the same time a definite scale. After a large area of psoriasis has once been formed the scaling is not so much in evidence. We see a congested and slightly infiltrated area, surmounted by scales, but not differentiated sharply from other red, squamous affections. The spots with which psoriasis begins vary much in size and in thickness of scale with the individual case; but generally speaking, the size of the scale is out of all proportion to the degree of subjacent disturbance. A thick, adherent crustlike scale may be seated on an area of skin but slightly compromised. Histologically,

as might be expected, psoriasis proves to be an affection of the epidermis. The papillary layer of the corium is only secondarily involved, from a tendency of the rete to grow inward.

Psoriasis is eminently a general dermatosis, despite the fact that it may sometimes be located for the time in narrow areas. As a rule it appears widespread, and lesions may occur in any locality. As an eminently disseminated affection, it may appear simultaneously in a number of localities, although most prominently in some one area. There may be a thick crop over the small of the back and buttocks with more sparse lesions elsewhere. Much depends upon the course. The more acute the outbreak the greater may be the range of localities involved. The more chronic, conversely, the more the affection may favor certain localities—for example, the scalp, elbows and knees.

In an outbreak of psoriasis, as with other dermatoses, two elements enter. First, the localities originally attacked; and second, the course of the affection in these original localities. Suppose the latter to be any one of the favorite seats of the disease. There may be no spread of the affection from the primary focus; in fact, after a stationary period, there may be spontaneous involution. This, however, is exceptional. All large, figurate lesions in psoriasis, wherever or however produced, come about from changes in elementary lesions. Psoriasis is a disease naturally macular or maculopapular in character. The mere surface points or droplets with which the affection begins may increase to the size of a large coin, but seldom beyond this. Whenever this or any considerable size is reached, the patch tends to clear up in the centre, leaving a ring; while the fusion of annular segments produces a gyrate pattern. The original nummular patches may fuse together, with the production of wide, diffuse areas. Psoriasis, then, begins as a point and may increase to the size of a pea or to that of any of the coins. At any stage its growth may become arrested. The individual lesions may be thickly grouped, and fusion may occur at any stage. But at any time one of the larger lesions may clear up in its centre, leaving a ring; and coalescence of these partially involved lesions may give rise to peculiar figurate patterns.

The more rapid the evolution of a psoriasis, the greater the dissemination and the less in evidence the scaling. Such cases suggest a rash, and may even burn and itch. In some cases it seems hardly conceivable that such eruptions are really psoriasis. It is of course possible that some ordinary rash can incite the appearance of a

psoriasis in one disposed to it. That local conditions shape the distribution is well shown by the occasional appearance of the disease in recent cuts, scratches and burns.

In the consideration of psoriasis, we must know how the affection originates; for once it is in full evolution it can hardly be reduced to symptomatology. Aside from a few localities, like the elbows, knees and scalp, psoriasis presents no particular local types. It affects the extensor more than the flexor surfaces, and usually spares the palms and soles, save in the generalized cases. The face, especially the more central portion, is seldom attacked. In certain cases it may affect the entire integument, causing general exfoliative dermatitis. It seldom influences the texture of the skin, so that pigmentation and cicatrization do not occur.

Etiology

We know but little about the nature of psoriasis, and attempts to connect it with causal elements produce different results in different countries. There is no doubt that the disease is aggravated by whatever influences that make for rheumatism and arthritism so-called, such as cold weather, inactivity, overeating, etc., but this influence can only be an indirect one. Its occurrence in members of the same families has never been worked out satisfactorily. We do not know positively that the disease is truly a familial one, for it is possible that it is mildly contagious. All attempts to discover and isolate a parasite have failed, yet the course of the lesions sometimes resemble strongly that of known parasitic diseases.

A neuropathic element, often markedly in evidence, is probably only a predisposing factor. As already stated, the affection is primarily one of the epidermis—the rete. The participation of the blood-vessels and the papillary layer of the corium appears to be secondary.

Diagnosis

The initial lesions, already described, are unmistakable; and a highly developed case, with its universal distribution affecting most markedly the extensor surfaces with its peculiar scaliness and configuration, is likewise unmistakable. Confusion is most likely to occur in isolated patches, say those on the scalp, about the ears, on the elbows and knees, etc., for eczema may attack the same localities and present much the same appearance. Exceptionally localized psoriasis has been seen in eczema areas, and differentiation is so difficult that hybrid types are spoken of. Whenever scaly, dry eczema, or sebor-

rhoic dermatitis appears to be especially resistant to treatment, and to return promptly and without manifest cause, it is well to study the case closely for evidences of psoriasis. In these cases the characteristic initial lesions may be detected.

A treated psoriasis is often impossible of recognition at first. The previous treatment may have removed the scales, so that we see only hyperemic macules, and rings. The condition may be readily mistaken for a papular syphilide. It is often well to leave such cases without local treatment for a few days, when the peculiar crustlike scales will form. In some cases, however, scaling is naturally slight and here, of course, diagnosis may be difficult. Psoriasis may develop in a subject with syphilis. Hence the Wassermann reaction may be misleading.

Prognosis

Psoriasis is one of the most inveterate of all affections, but it responds to treatment to a notable extent, and months, often years, may elapse between outbreaks. The affection is not progressive with years, and leads to no serious consequences of any sort. Much depends on the appearance of new lesions, for in some subjects these appear almost continually, and little or nothing can be done to arrest them, unless the process is relatively slow and local, when if put on a thorough regimen it may be possible to check the outbreak. Much also depends on the tendency of lesions to enlarge and form patches of size, for in many cases the spots do not pass beyond the guttate stage. It is the combination of these two factors which causes the most severe cases. The more vigorously the disease is combated the better should be the prognosis; but there are exceptions, for too vigorous treatment sometimes seems to immunize the skin to the favorable action of the remedies, and it is also possible for a case to advance steadily despite the most careful treatment.

Treatment

On a carefully selected diet and regimen, such as benefit eczema and acne, psoriasis also improves. Lesions clear up when training for athletic events and also upon low plans of diet. This kind of management naturally renders the skin a more unfavorable culture medium for germs of all kinds, but does not justify the claim that psoriasis is due to a germ. No matter what the state of the individual, attempts should be made to render all his functions normal, whether he is to be built up or reduced. Going bare in the outdoor air and sunlight is believed by Piffard to have a natural curative tendency. If any well-

marked affection is present it should be treated in the hope that the general state will improve. This applies especially to anemia, rheumatism and gout. Arsenical preparations, including mineral waters which contain arsenic, frequently give surprising results, but it is often best to save this resource and not place a fresh case upon it, for the patient quickly becomes tolerant to it. When there is urgent need that a patient be cleared up for the time being, arsenic pushed to the limit, combined with vigorous local treatment, may effect the desired result. It may be months before the patient will again respond to arsenic. Generally speaking, the local treatment of chronic eczema may always be essayed in psoriasis. Many insist that alkalies have a distinct ability to control the disease; this might be true of paroxysms, but alkalies are not suitable remedies to give for months. The benefit ascribed to iodide of potassium may be due to the alkali and not the iodine. The effect of alkalies may be secured by a diet made up largely of fruits and vegetables, by alkaline waters, etc. Alkalies and arsenic given simultaneously may prove more efficacious than either one alone. They may be pushed together or alternately.

Local treatment is all-important and must be applied with reference to every detail. Some of the agents in common use stain the hair, clothing and bedding. It is not well to use the best ammunition in incipient or mild cases, for the skin soon acquires a tolerance to remedies. As a rule, scales must be removed in connection with the treatment, so that the affected epidermis may be directly acted upon. To insure this result, bathing, oils and salicylic acid ointment coöperate. If a considerable area is involved, a general alkaline-starch bath may be used. Oil inunctions also serve to loosen the scales. The mere removal of the scales sometimes gives the impression of great benefit, and salicylic acid is valuable in preventing the reappearance of scales. For circumscribed patches on the knees and elbows, an ointment of white precipitate may be sufficient for a cure; and it is better at the outset to use minerals, and especially tarry preparations, saving those to be named later for emergencies. In fact, any of the remedies found useful in chronic eczema should be of use in psoriasis, although the latter will prove much more refractory.

The so-called specifics, chrysarobin and pyrogallol, will have plenty of opportunity for full testing. Either of these in ointment form will cause the disappearance of psoriatic patches, but must not be used too often, lest the effect be lost. Remedies like these cannot

be used in rotation very long, as both soon lose their effect. It is well, as soon as a good impression is made with these, to go back to tar and mercurials. Betanaphthol is said by some to be nearly as good as the two remedies mentioned.

Fig. 54. Model in Lesser's Clinic in Berlin (*Kolbow*).

Fig. 55. Model in Neisser's Clinic in Breslau (*Kroener*).

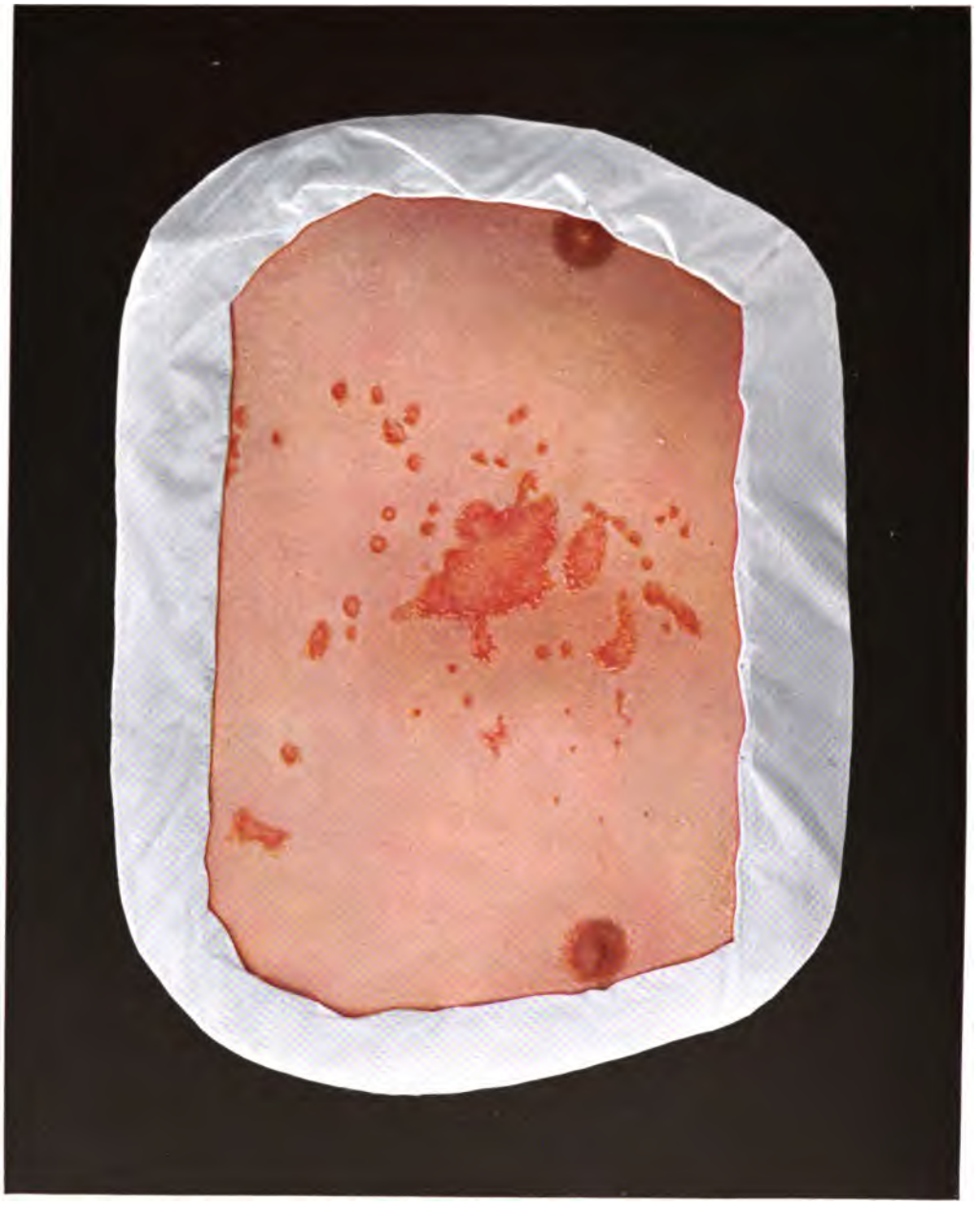
Fig. 56.—Model in Neisser's Clinic in Breslau (*Kroener*).

Fig. 57. Model in Freiburg Clinic (*Vogelbacher*).

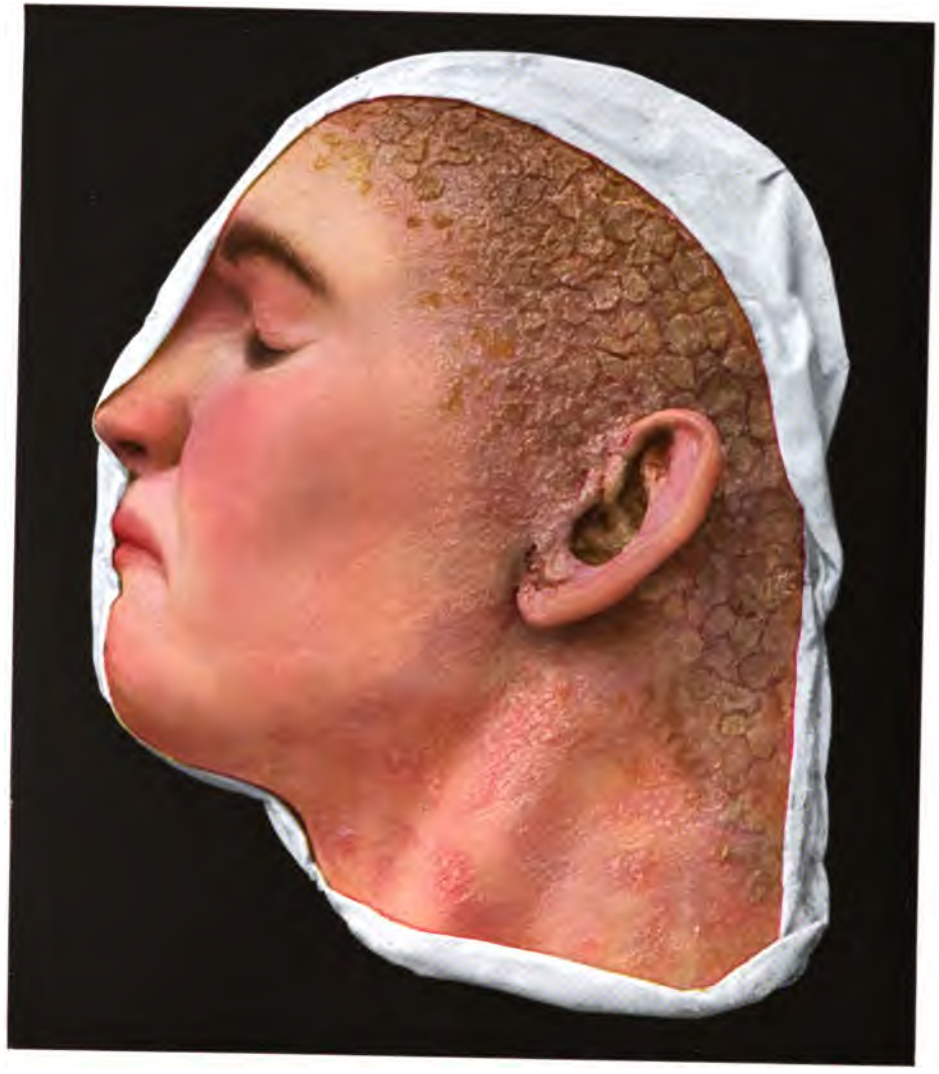
Fig. 58. Model in Neisser's Clinic in Breslau (*Kroener*). A man, thirty-five years of age, who, in the course of a rather extensive eruption, had manifestations on the palms and soles.

Figs. 59 and 60. Models in Neisser's Clinic in Breslau (*Kroener*).

Figs. 61 and 62. Models in Neisser's Clinic in Breslau (*Kroener*).



No. 63. Eczema seborrhoicum.



No. 64. 65. Eczema seborrhoicum.

Eczema Seborrhoicum

Synonyms: Dermatitis seborrhoica, Seborrhoic eczema

Plate 39, FIG. 68; *Plate* 40, FIGS. 64 and 65; *Plate* 41, FIG. 66

This affection comprised originally no more than the so-called "inflamed seborrhea"—salmon-colored disklike areas covered with a greasy scale and occurring on the head and face, sternal and intrascapular regions. Exceptionally this eruption had a general distribution and bore a more or less striking likeness to a disseminated guttate psoriasis. Upon this substratum Unna proceeded to erect a superstructure of disease termed by him seborrheic eczema, which could be so stretched as to include a great deal of what is usually classed as ordinary eczema. Much of ordinary dandruff belongs here, the mere production of the fatty scales being held to be sufficient evidence of the disease even in the absence of sensibly inflamed scalp. A large part of the ordinary eczema of the scalp is also placed here, even if it be typical. In some of these cases the presence of ordinary inflamed seborrhea of older authors is present and frequently extends from the hairy scalp upon the smooth skin for a short distance. The middle of the face—sides of the nose chiefly—is a common site of inflamed seborrhea, the skin being oily, the sebaceous glands patulous and often occluded with sebum, with maculopapular lesions of pale hue and surmounted by scales or fatty crusts. These lesions have affinities with acne rosacea and lupus erythematosus, and in fact the same lesion may be common to all under certain conditions. The obstinate eczema of the vermilion border of the lip is also claimed as seborrhoic, when it is associated with seborrhea of the scalp or nose.

The peculiar lesions over the sternum and between the scapulæ have usually passed for eminently characteristic local eruptions, quite peculiar to the localities affected. They are of common occurrence, and when we see them we may usually take it for granted that the subject has dandruff and seborrhea of the face.

Patches are also not uncommon in the armpits and genitocrural

region. While in some cases the discrete, pale-red lesions are in evidence, there are others in which the eruption resembles an ordinary eczema or intertrigo. A diagnosis can only be made through collateral evidences of seborrheic dermatitis elsewhere.

As already stated, a diffuse, generalized case, where guttate lesions are found over the limbs as well as the trunk, bears a striking resemblance to a psoriasis, which is either less scaly than common or has been benefited by treatment. In some of these cases, however, diagnosis is easy, for there are principal lesions in the favorite localities of seborrhoic dermatitis; the lesions have a peculiar salmon color, and the scales are greasy. Eczema seborrhoicum of the scalp is a fertile cause of premature alopecia.

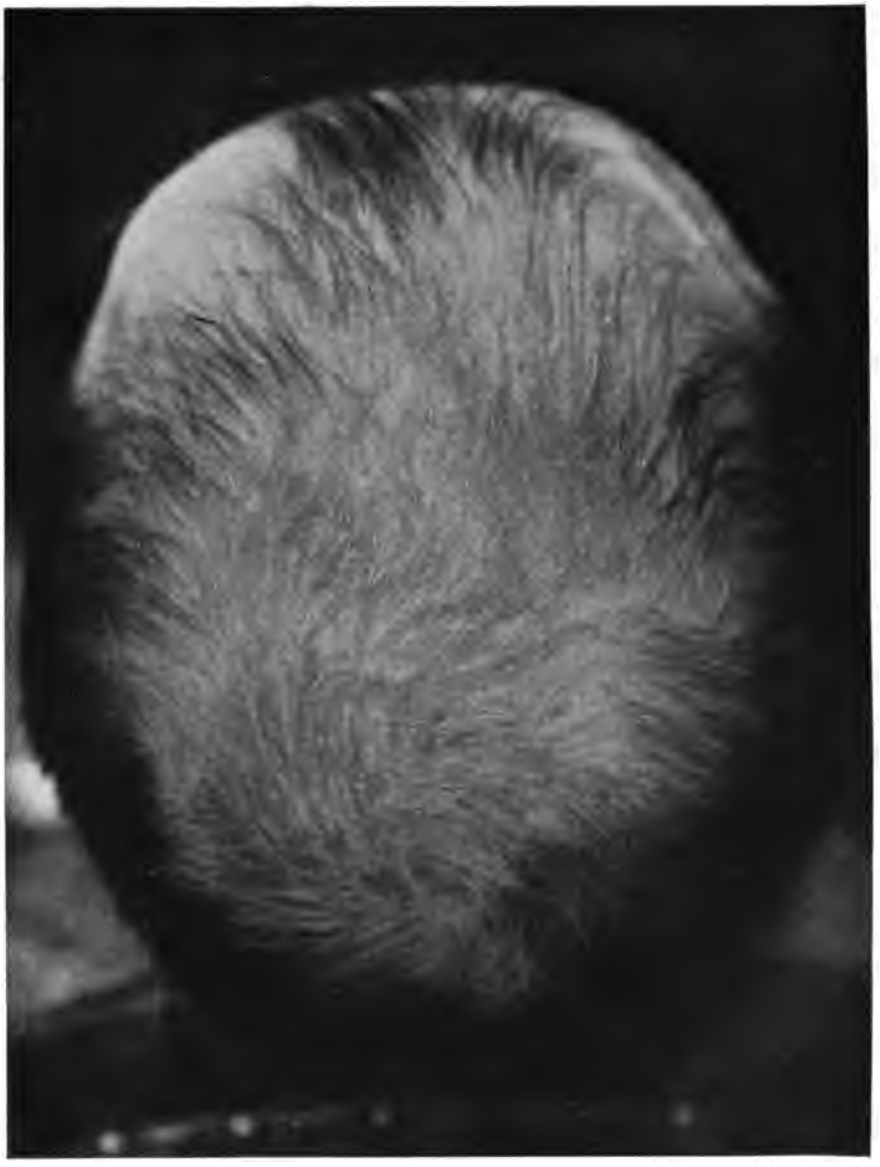
Etiology

It was long held that in ordinary functional seborrhea the process might culminate in a sort of adenitis of the sebaceous glands; in the same manner, perhaps, as congestion of the sweat-glands leads to prickly heat. This view was succeeded by one involving infection of the glands from without, and resulting dermatitis. The suggestion of parasitism is much stronger here than in ordinary eczema. The claim has been advanced that the sweat-glands are also involved. Numerous microorganisms have been accused of causing this affection. No progress has been made of recent years in our knowledge of the latter, which for the present is very defective.

Diagnosis

The diagnostic features have already been enumerated in part. The disease, wherever else present, may always be found in the scalp; it begins there, and may not appear elsewhere. It seems to extend downward, for its next most conspicuous place is the face and about the ears, then the breast, axillæ and back, and so on. The soil in which the disease develops is much like that in acne, the sebaceous glands evidently being strongly disposed to inflame. The inflammation is mild in degree, focal, and produces greasy crusts. Itching is not extreme, and scratch-marks are seldom seen. When it does closely simulate ordinary eczema, the locality and soil may be sufficient to exclude the latter.

A most important source of confusion may arise in the case of an early syphilide, because the latter produces a very similar appearance in the scalp. A generalized case may also resemble a syphilitic outbreak. Syphilis, psoriasis, and a partially cured ringworm may



No. 66. Alopecia from eczema seborrhoicum.

all simulate seborrhea, since all may form annular lesions. A good diagnostic resource is response to treatment, which should be much more prompt in seborrhea.

Prognosis

A tendency to recurrence after the disappearance of the lesions suggests a reinfection, and renders the course uncertain and chronic.

Treatment

Sulphur locally is regarded as a specific, although not much used in the scalp. The principle upon which sulphur is used is its efficacy in acne. Other valuable remedies are salicylic acid and resorcin. The general health should receive attention. Some individuals cannot use alcoholics without greatly aggravating seborrhea of the scalp. If the disease proves obstinate, any of the measures used in obstinate cases of eczema and psoriasis may be used, and the same is true of the treatment of the acnes, which may also be employed with the idea of rendering the sebaceous glands less disposed to inflame.

Fig. 63. Model in Freiburg Clinic (*Johnsen*).

Figs. 64 and 65. Models in Neisser's Clinic in Breslau (*Kroener*).

Fig 66. Half-tone, Dr. Kingsbury, New York.

Pernio

Synonyms: Chilblains, Erythema pernio

Plate **42**, Fig. 67

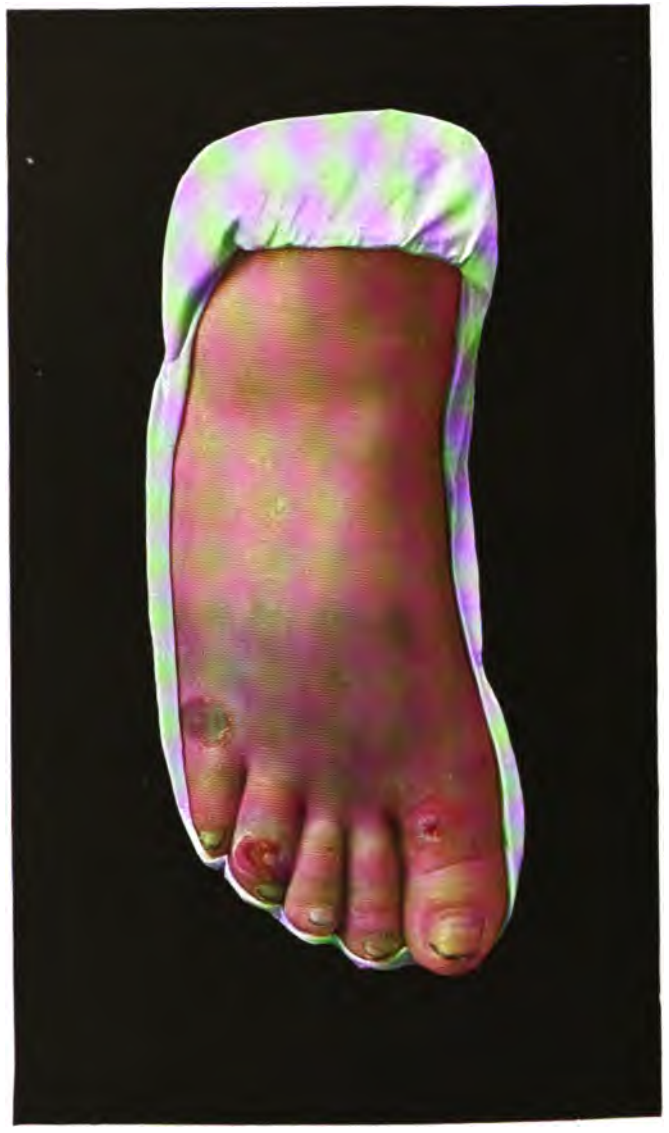
Chilblains, unless severe, do not claim much attention, since they are an almost universal consequence of the seasons—the beginning and duration of the cold weather, at the close of which they subside of themselves. But conditions strongly suggestive of chilblains, since they involve the chilblain area, and also much influenced by cold weather, begin like ordinary chilblains. We refer here to Raynaud's disease and lupus pernio. The chilblain area comprises the extremities of the body—the fingers, toes, heel, nose and ears. It is usually taken for granted that a person who suffers much from chilblains has a poor circulation and is anemic; and doubtless the truth of this claim might be readily demonstrated. As a matter of fact, however, one of the most if not the most striking factor in keeping up the condition of chilblains is the sudden warming of chilled or damp feet by placing them before a fire or standing on registers. If there is a predisposition, whether due to defective circulation or anemia, a slight degree of chilling may start up the affection. It is claimed by some authorities that chilblains are to a certain extent a familial affection.

The skin in the chilblain area is cold to the touch, red or livid and edematous. Itching is intense, and increased by warm rooms, contact with bedding, etc. The impaired vitality of the tissues is shown by the readiness with which they form abrasions, blisters and ulcers, which heal with difficulty.

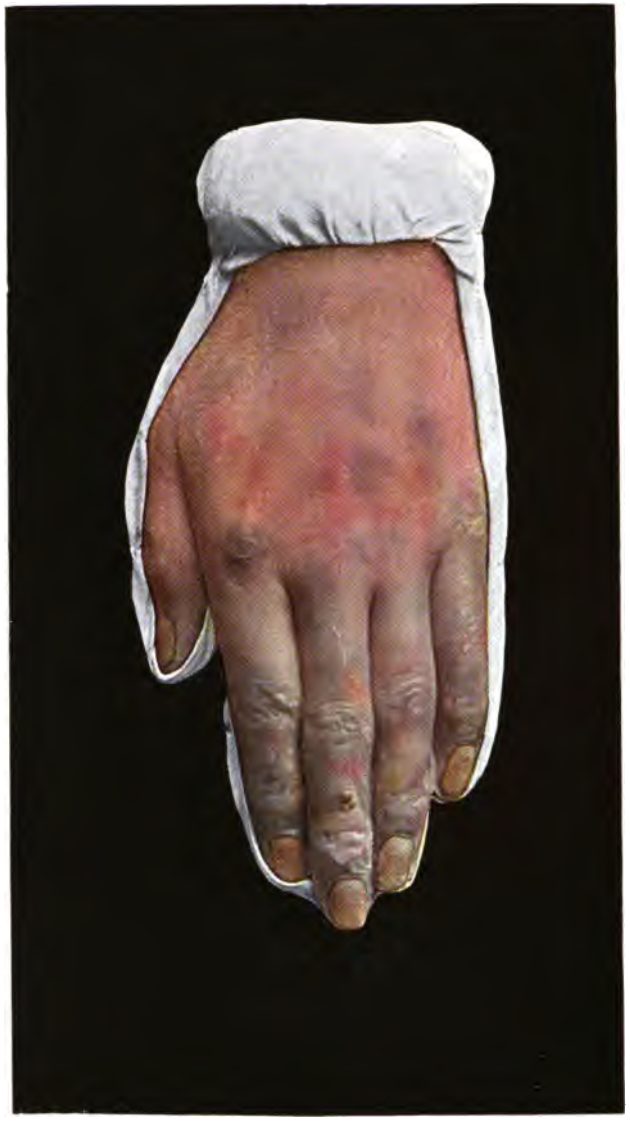
Treatment

Chilblains may be prevented by treatment instituted before the cold weather begins. Tonics should be given, and an attempt made to harden the tissues with cold bathing. Itching should be controlled by ordinary antipruritics. Anything which antagonizes the condition of stasis should be of value.

Fig. 67. Model in Neisser's Clinic in Breslau (*Kroener*).



No. 67. Perniones.



No. 68. Morbus Raynaud.

Raynaud's Disease

Plate **42**, Fig. 68

This affection is a vasomotor neurosis which is described at great length in works on neurology and in special monographs. It belongs to the so-called acroneuroses and is therefore limited to the extremities —fingers, toes, ears, and exceptionally the tip of the nose. It is believed to result from a persistent angiospasm of the terminal arteries and veins, although the same condition may be produced by an actual arteritis. It stands in a certain definite relationship to the so-called chilblain area, and appears to attack individuals with a sluggish terminal circulation who are predisposed to cold extremities and chilblains. The persistent vascular disturbances tend to terminate in extensive trophic alterations, the most significant of which is dry gangrene, whence the synonym "symmetrical gangrene." One or more digits may be involved on each hand or foot.

The early symptoms vary considerably, due no doubt to the relative part played by the arterioles and venules, and also to the fact that the initial spasm of the vessels may be followed by paresis. Further, the affection develops in a series of exacerbations with quiescent intervals between. The fingers are often seen to be white and cold, this phase of the process indicating intense local anemia from angiospasm of the arterioles. This stage is by no means necessarily present, and the malady may begin with what is termed the second stage. It is impossible to state to what extent this is due to venous angiospasm. The fingers become red and congested, as if from the cold, the color usually deepening as the disease advances. Even in the early period the extremities may have an intense cyanotic hue. The statement that angiospasm is necessarily followed by a condition of vascular relaxation does not seem reasonable, for the vascular changes must be essentially obstructive in order to cause gangrene. The latter is not a necessary development, for the condition may never progress thus far. The gangrene may also be very slight and superficial or, instead of necrosis, trophic ulcers or atrophy may develop. It must

never be forgotten that Raynaud's disease is not infrequently combined with one of the other acroneuroses, notably scleroderma, erythromelalgia, and perhaps acroparesthesia. These complications naturally give rise to atypical cases. The uncomplicated disease is not characterized by much subjective disturbance.

Diagnosis

It is often difficult to distingush Raynaud's disease at its outset from the other acroneuroses. As already stated, transition forms occur, and the different affections really form a group disease. There is considerable resemblance at times to the lesions of syringomyelia. It has been said that Raynaud's disease cannot possibly be distinguished from syphilitic arteritis, the crippling of the peripheral circulation being practically the same. Arteritis of some sort is no doubt responsible for a certain per cent. of cases. A Wassermann test should be made as a matter of routine.

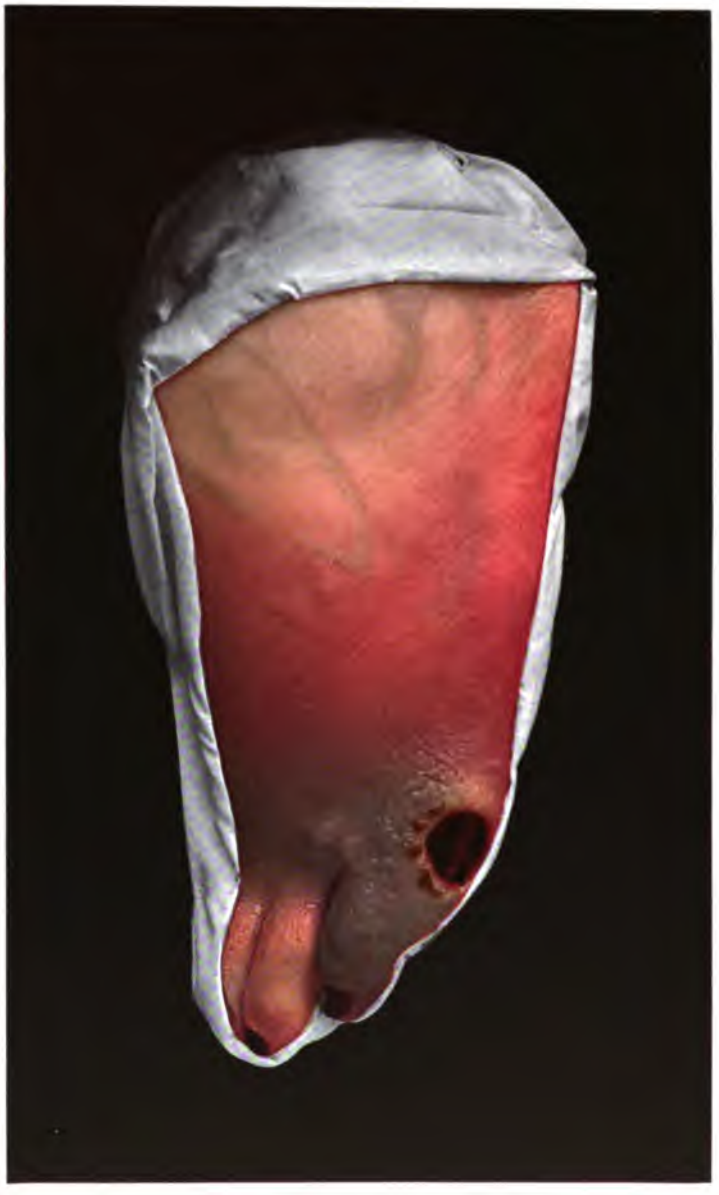
Prognosis

This is good for life, but rather poor for recovery. The gangrenous tissues separate in time, and the exposed surfaces heal slowly. Amputation is seldom required. The disease may reappear in other fingers, so that we may see the different aspects side by side.

Treatment

This includes all measures which may favorably modify the circulation, including general regimen. Hydrotherapy, massage, galvanism and faradism have all been used extensively. In the later stages strict asepsis is required, as infection from without readily occurs and fatal sepsis has been known to result.

Fig. 68. Model in Neisser's Clinic in Breslau (*Kroener*). See Transactions of Dermatol. Congress in Breslau, 1901.



No. 69. Gangraena diabetica.

Diabetic Gangrene

Plate **43,** Fig. 69

Localized cutaneous gangrene frequently occurs in cases of advanced diabetes mellitus. The extremities are generally affected, particularly the toes and fingers. Occasionally the penis is involved. Although the gangrene may be of any familiar type, Kaposi has described a form believed to be peculiar to this affection. It is seen only in advanced cases, and consists of a serpiginous grouping of bullæ occurring on the limbs in successive crops. A black scab then forms, which is surrounded by a ring of new bullæ. The corium is involved, and after all scabs have come away, a portion of it sloughs. This, in turn, being thrown off, leaves a granulating surface.

Prognosis

This should always be guarded, as the gangrene occurs only in individuals suffering from advanced diabetes.

Treatment

This has never been very satisfactory. For the underlying condition, general medical and dietetic measures are of course indicated. When gangrene is established its advance is often controlled by the frequent application of warm antiseptic dressings. In beginning diabetic gangrene of the fingers good results have recently been reported following the employment of Schaeffer's hot air method of treatment. The intense heat is said to force new blood into the stagnating blood-vessels and by re-establishing the circulation aborts the process.

Fig. 69. Model in Neisser's Clinic in Breslau (*Kroener*).

Ecthyma Gangrenosum

Synonym: Dermatitis gangrenosa infantum

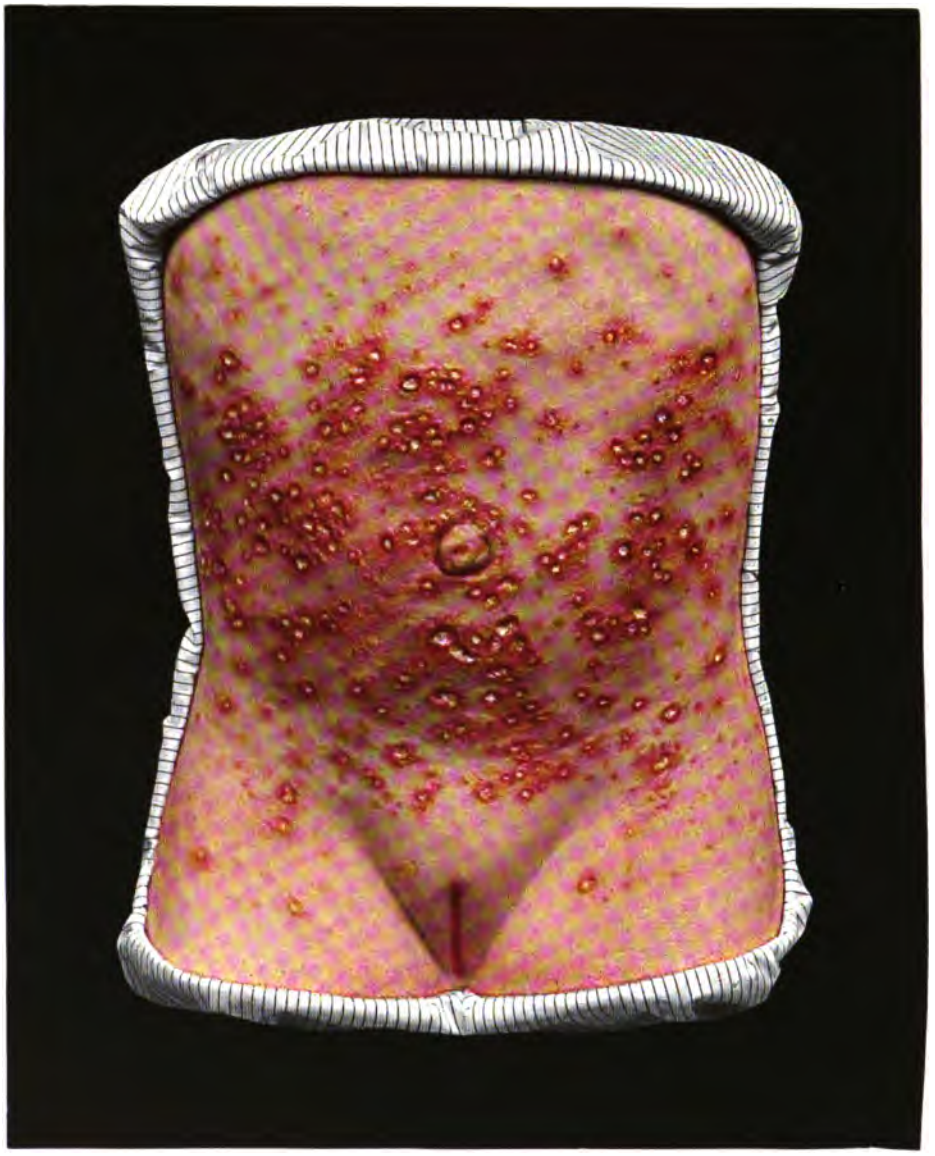
Plate **44**, Fig. 70

This affection, while peculiar to young children, corresponds to multiple spontaneous gangrene in adults. A study of the literature conveys a strong impression that a distinct disease as described by some authors does not really exist. If we state that in certain cachectic infants nearly any eruption may become gangrenous under certain unknown conditions, there is not much to add.

Hutchinson first described the condition as a sequel of varicella, under the name varicella gangrenosa. A similar termination was noted in vaccinia. Other cases were described as pemphigus gangrenosus. French authors regard it simply as ecthyma with a necrotic tendency, and term it terebrant or boring ecthyma, rather than gangrenous; for in gangrene we naturally expect to see more lateral extension. The term rupia escharotica conveys the impression of firmly adherent crusts, beneath which necrosis occurs, either from pressure or through the action of anerobic bacteria.

The chief interest lies in the purely spontaneous cases, which are said to begin as small papulopustules or vesicles about the buttocks. In a case described a few years ago by Welander, in a young infant, the head was the seat of the lesions, although the statement has been made that the head is never attacked. The disease may run a relatively mild or a severe and fatal course, and there may be only a few lesions or many. It has been shown to be independent of tuberculosis and also of syphilis. No evidence of pathogenic germs constantly present has been adduced, nor is it even known whether such germs are inoculated from without or gain the surface from within. In fatal sepsis a few small necrotic pustules have been seen in the skin as if produced by emboli of germs, but they bear no clinical relation to this affection.

From the fact that the lesions are usually seen about the region of



No. 70. Ecthyma gangraenosum.

the buttocks, it has been thought that they have resulted from inoculation from feces or other outward source. They have, however, been seen to cover the abdomen and limbs, also, as above stated, the head.

To sum up, when the affection is not secondary to some well-known eruption, like varicella, it appears to begin as papulopustules or vesicopustules, which lead to crust-formation. Destruction of tissue takes place beneath and around the crusts and an ecthymatous lesion is produced, i.e., a large pustule with a hard, inflamed base. The crusts come away, leaving ulcers, which, if the lesions are close enough together, may become confluent, but no diffuse gangrene results. Permanent scars naturally result.

Treatment

This is carried out by ordinary antiseptic dressings, with tonics and good nursing.

Fig. 70. Model in Kaposi's Clinic in Vienna (*Henning*).

Ulcer from Roentgen Rays

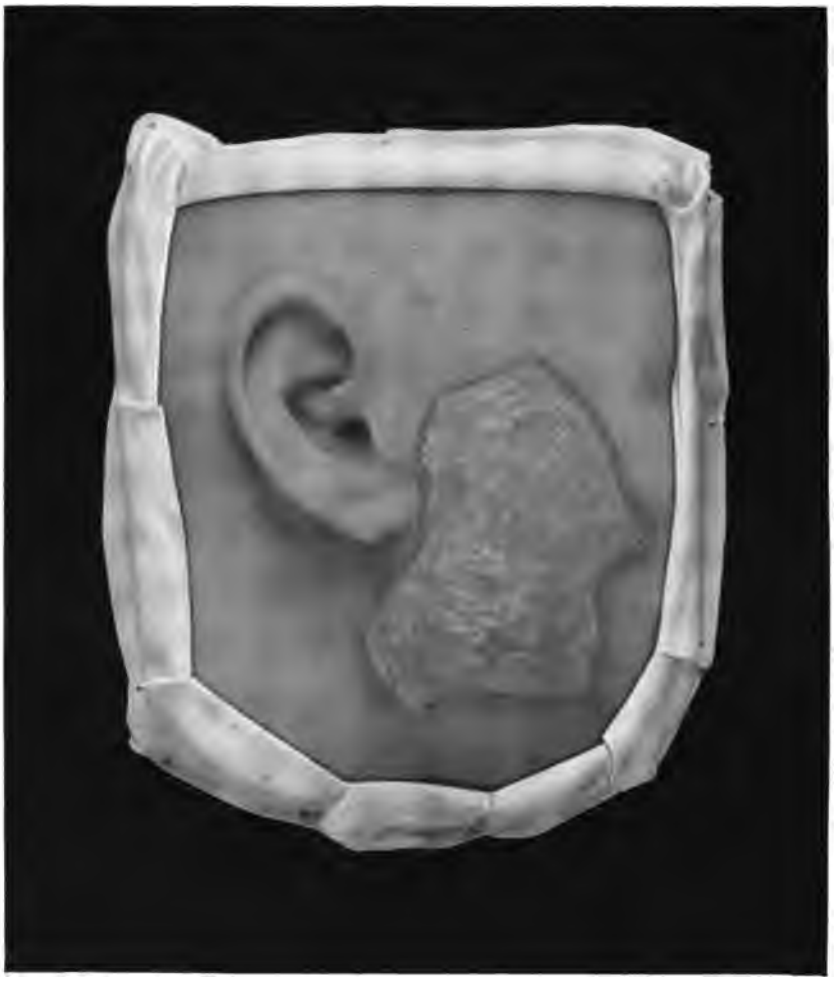
Plate **45**, Fig. 71

The Roentgen rays cause various degrees of injury to the skin and subjacent tissues, as a result either of oversensitiveness or excessive dosage, the latter being largely preventible, as should also be the results of accidental exposure. The changes caused somewhat resemble the different degrees of sunburn, and there are also trophic alterations, such as shedding of the hair. After a period of latency, occupying in some cases several days, the characteristic erythema or dermatitis supervenes. The mildest degree is much like the erythema due to the solar rays and likewise tends to leave pigmentation. With repeated or severe exposures or undue sensitiveness a vesicular dermatitis results. Unlike sunburn, a deeper degree of injury sometimes occurs in which superficial necrosis develops, leaving a large raw surface covered perhaps with an adherent false membrane. These are not only extremely painful but show little or no tendency to cicatrize. There is also, so to speak, a fourth degree of injury, in which the subcutaneous tissues—muscles, bone, etc.—may also slough, leaving deep losses of substance. Hence the two severe degrees of X-ray injury are not unlike burns of the third and fourth degrees. They appear to be due primarily to injury to the blood-vessels. Those who work continually with the rays also suffer from atrophy of the skin of the hands and forearms, and the development of epithelioma is not infrequent.

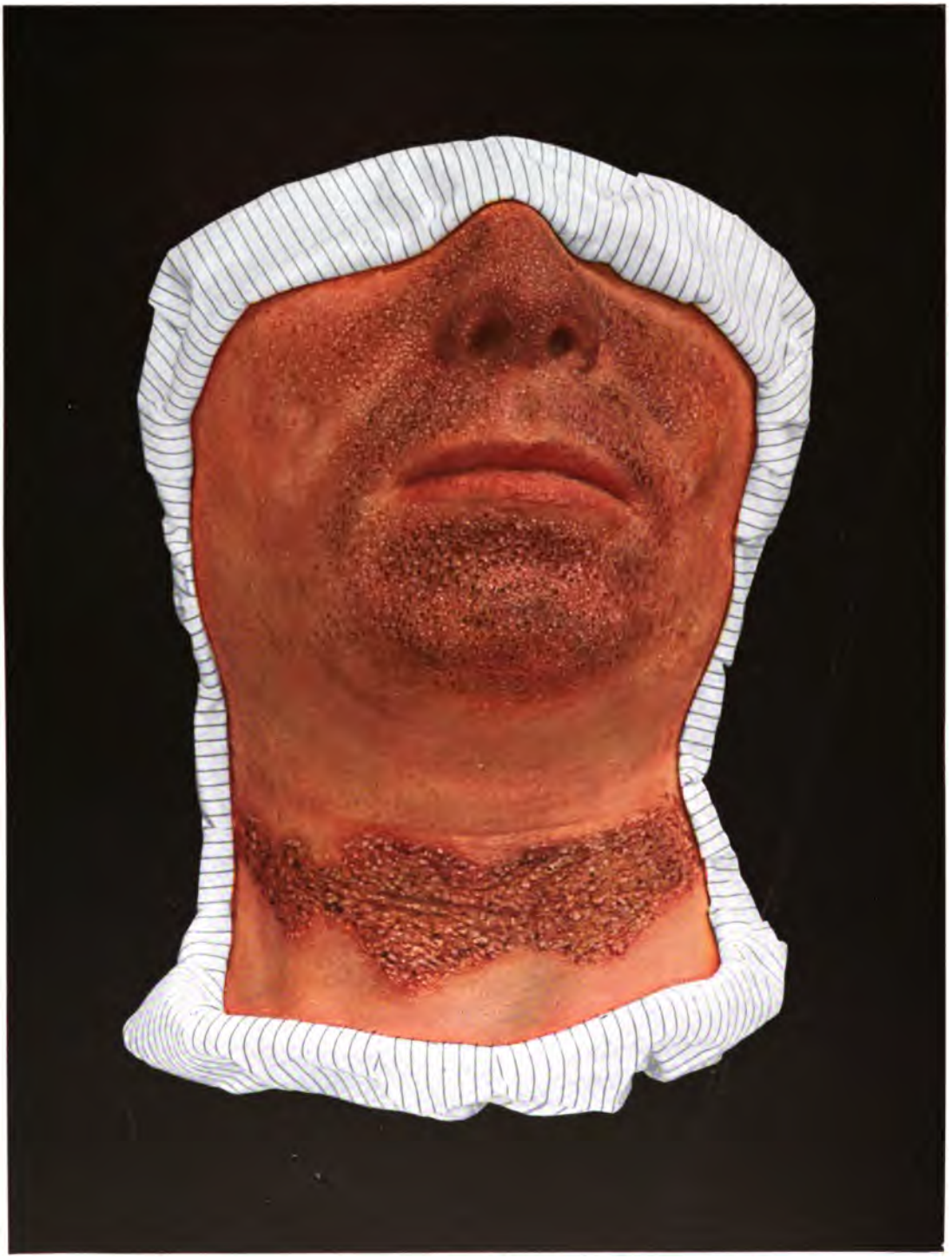
Treatment

The milder degrees of injury are managed like dermatitis and acute eczema. The ulcers are often very painful and anodynes are frequently indicated, orthoform being the most useful. In deep ulcers excision followed by skin grafting may be practiced but owing to the peculiar pathological change that has taken place in the tissue surrounding the ulcer the surgical results are often disappointing.

Fig. 71. Model in Freiburg Clinic (*Vogelbacher*).



No. 71. Ulcus e radiis Roentgen.



No. 72. Pellagra.

No. 73. Pellagra.

Pellagra

Plates **46** and **47,** Figs. 72 and 73

Pellagra is a general disease with important and characteristic cutaneous manifestations which serve for its recognition. It was at first thought to be peculiar to certain countries in southern Europe, in which it is endemic, notably parts of Spain and Italy. In comparatively recent times it has been seen both sporadically and epidemically in various localities in both hemispheres. It is clearly not peculiar to warm climates, although practically confined to them. The earliest cases seen in the United States were in native subjects, and confined to the insane. They are known as, or presumed to have been, pellagra from the records of institutions although not recognized at the time. In quite recent years a few imported cases have been noted in the United States. The great bulk of American cases, however, have appeared within the last decade, and in the Southern States, where pellagra now prevails to an alarming extent. It has recently been asserted that the disease may be found described in the annals of Spanish America, at a date much earlier than the oldest European records.

Owing to its severe constitutional symptoms, chiefly manifested in the nervous system and gastro-enteric tract, pellagra is relatively unimportant as a dermatosis. A large proportion of cases find their way to insane asylums. The eruption of pellagrins is confined to a desquamating erythema of the face and backs of the hands and wrists, which extends for a variable distance up the forearms; this is a chronic condition which in time shows a slight degree of thickening and deposition of pigment. A certain amount of atrophy may remain.

The patient seems at first to suffer from spring lassitude along with disordered digestion. The latter may involve almost the entire digestive tract—stomatitis, epigastric pain, anorexia, and diarrhea. The patient becomes weak and easily fatigued. After several weeks of these prodromes, the parts exposed to the weather—face, portions of the upper extremity already mentioned, and the tops of the feet and ankles, in those exposed, assume a deep red hue with a tendency to become brown. That the sun and wind are only predisposing causes, as

in the case of freckles, is apparent from the fact that in rare instances the erythema has been seen on non-exposed regions. The process may be very superficial or deeper, and in the latter case results in more or less thickening. Peeling, pigmentation and atrophy, these sequelæ of the inflammatory process, are often seen side by side, forming a picture which could not be mistaken for any other affection. The skin, thinned and wrinkled, and deeply pigmented, sometimes shows diminished sensibility. The amount of cutaneous participation is no index of the general severity of the disease. In the more acute forms the patient may die before erythema develops. The course of the skin lesions follows the seasons, improving or disappearing in the fall, probably to reappear in the spring. The peeling is an integral part of the disease and not a mere sequel of the erythema. Even when the skin has become atrophic the epidermis comes away in large flakes. Several years are required for the combined cycle of changes in the skin. The patients are doomed to disability and very often to early death. There are however degrees of severity and in the mildest the patient may live for many years and sometimes recover. In a virgin community the disease is more severe and few survive.

Etiology

Of this absolutely nothing is known. It is probable that two factors act in association. One is a living cause, and the other a vehicle which is probably articles of diet. The spoiled Indian meal so often accused cannot cause all the cases. We know now that the prosperous and well-fed may become affected. It is believed that solar rays are somehow responsible, in that they may liberate a poisonous principle in the tissues. As a pseudo-pellagra has been caused by various agencies—alcoholism, and perhaps ergotism—it has been held that pellagra is a mere syndrome. The actual lesions which cause death seem to be intracranial—pachymeningitis and cerebral sclerosis.

Diagnosis

Only in the early stage could any confusion arise. The disease while it may attack all ages is not a child's malady but inclines to affect mature people exposed to the weather. No one should confuse pellagra with sunburn for it appears in the spring and not at the beginning of summer. We sometimes find a crude simulation of pellagra in wretched cachectic and alcoholic subjects.

Treatment

On the first appearance of the disease when the type is mild, vigorous constitutional treatment with change of diet and surroundings

ought to benefit the patient. Arsenic and thyroid substance are two remedies which are believed to have some specific virtues. That a severe blood dyscrasia is present seems to follow from the favorable results of transfusion in severe cases. Local treatment is hardly mentioned by authors; but as considerable itching is present the management of acute eczema ought to be transferable to pellagra.

Figs. 72 and 73. Model in the Dermatological Clinic of the University in Innsbruck (*Henning*). The reproduction of this model, which was first published in a Monograph by Prof. Merck, "Skin Manifestations in Pellagra," was kindly permitted by the author.

Variola

Synonym: Smallpox

Plate **48,** Fig. 75; *Plate* **49,** Fig. 76

Variola is an acute infectious disease of unknown causation: a protozoon has been described but has not been definitely proven to be the causative agent.

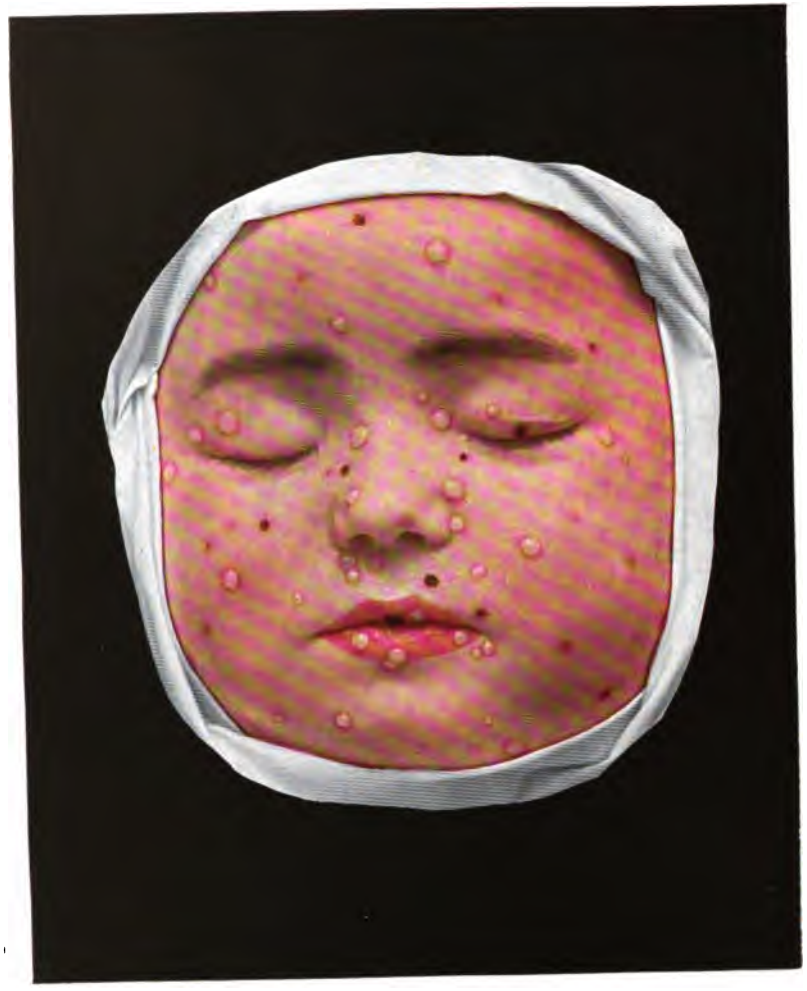
Among those unprotected by vaccination, variola is the most virulent of all contagious diseases.

The period of incubation, when the disease is inoculated, is eight to nine days; when it is transmitted by contagion, it is ten to fourteen days, and occasionally longer. All persons exposed should be kept under observation for at least three weeks.

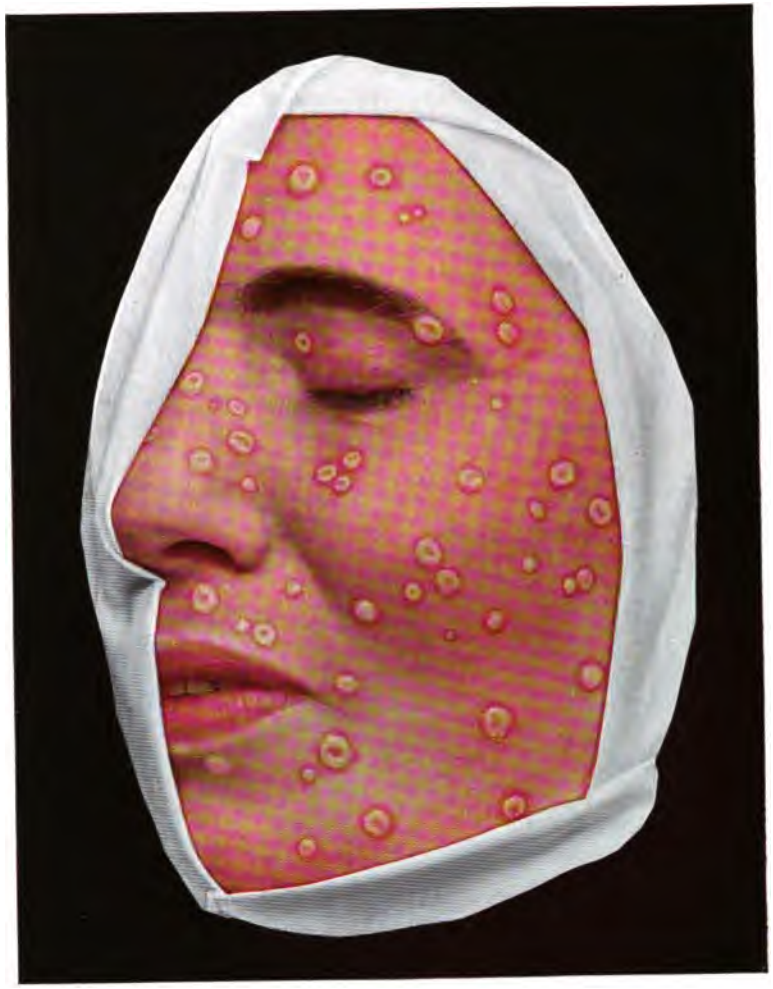
Onset is sudden with severe chills, high fever, temperature 103° to 105° F., intense backache and pains in the legs, vomiting, frequently delirium and in children convulsions.

Prodromal eruptions, when they occur, appear usually on the second day. They may be morbilliform or erythematous in character and may be hemorrhagic, and are most marked on the lower part of the abdomen, inner surface of the thighs, the axillæ or lateral thoracic region; occasionally they occur on the extensor surfaces, especially of the knees and elbows. The erythematous type limited to the lower part of the abdomen and inner surface of the thighs is seen especially in pregnant women.

The characteristic eruption appears on the fourth day, first on the forehead and face, and spreads rapidly over the whole body, involving the mucous membranes of the eyes, mouth, and throat; but it is always most marked on the face and hands. The eruption consists at first of hard, small, shotlike papules which rapidly increase in size and gradually, usually by the end of the second or third day, become vesicular. These vesicles are always umbilicated, and after another two or three days, their contents become purulent. As the pustules develop, the temperature, which had gone down with the development of the



No. 74. Varicella.



No. 75. Variola discreta.

papules, rises again. The pustules begin to dry up and crust in about ten days.

At this time the temperature falls and there is a general improvement of all symptoms. The crusts usually come off and leave completely healed lesions by the twenty-first day.

In addition to the above or regular type we have hemorrhagic smallpox, which occurs in two forms: first—purpura variolosa: in this form at the end of the second or on the third day an erythematous rash appears, especially in the groins, with small punctiform hemorrhages; the rash extends, rapidly becoming more and more hemorrhagic, ecchymoses appearing in the conjunctiva—and hemorrhages from mucous membranes. This type is rapidly fatal—death occurring on the third to fifth day. Second form or variola hemorrhagica pustulosa: in this form hemorrhages occur when the rash reaches the vesicular or pustular stage. Bleeding from mucous membranes is common and the mortality is high—death occurring on the seventh to ninth day. Occasionally cases are seen where bleeding takes place into the lesions in the vesicular stage, followed by rapid abortion of the rash and speedy recovery.

Varioloid, modified smallpox, seen in persons who have been successfully vaccinated, sets in abruptly like the regular type, but the symptoms are usually milder, the number of the lesions are very much less and may be limited entirely to the face and hands; the temperature drops rapidly, the lesions soon dry up and there is no secondary fever.

Diagnosis

The prodromal rashes are to be differentiated, first, from measles by the severity of the constitutional symptoms, the absence of Koplik's spots, the absence of lacrymation and coryza, and by the early appearance of the rash on the trunk instead of on the face and neck as in measles. Secondly, from scarlatina by the initial symptoms and the absence of the angina and scarlet tongue.

The regular rash must be differentiated chiefly from varicella. This is done by the severity of the onset, the duration of the prodromal symptoms, the site where the rash first appears—in varicella the rash first appears on the trunk—and the individual characteristics of the lesions. The papules in variola are always hard and shotty and last about two days; in varicella the papules are not indurated and become vesicular in a few hours. The vesicles of variola are always umbilicated and do not collapse when ruptured; in varicella they may be umbilicated, but they are superficial and do collapse when ruptured.

The most characteristic and important point, however, is that the lesions in variola are all in the same stage on the same site, while in varicella the lesions come out in crops, and we find papules, vesicles, pustules and crusts intermingled in the same region. The lesions in variola are comparatively most numerous on the face and hands—in varicella they are comparatively most numerous on the back.

From pustular syphilis it is diagnosed by the history of the onset, the history of the development of the rash—the absence of mucous patches and condylomata. A negative Wassermann would also be of great aid in the diagnosis.

Prognosis

In the hemorrhagic types it is very bad. In the regular type it varies directly with the severity of the disease, from bad in the confluent form to favorable in the discrete form. In varioloid it is very good.

Prophylaxis

Every one should be vaccinated regularly every three or four years, and if exposed to the disease revaccination is imperative.

To prevent the spread of the disease, all cases occurring in cities or thickly settled communities should be isolated in suitable hospitals. All persons exposed should be inspected daily for at least twenty-one days.

All bedding and clothing that has come in contact with the patient should be thoroughly disinfected either by boiling or steam sterilization. If this cannot be done, it should be burned. The premises from which a case has been removed should be fumigated with either sulphur or formaldehyde, using four pounds of sulphur for every 1,000 cu. ft. of air space and eight hours' exposure or six ounces of formalin per 1,000 cu. ft. of air space and five hours' exposure. After fumigation the premises should be washed with a 1-1000 solution of bichloride of mercury. All excreta should be sterilized by a 5% solution of phenol or a 1 to 1,000 solution of bichloride of mercury.

In case of death the body should be wrapped in a sheet saturated with a 1 to 1,000 bichloride solution and interred in a metal lined coffin.

Treatment

Absolute rest in bed from the beginning until the secondary fever has subsided. The diet during this period should be liquid.

For the intense headache and backache morphia by hypodermic injection gives the best result and should be given early. Dover's powder is occasionally satisfactory in relieving the insomnia. The temperature can be best controlled by hydrotherapy.

The eyes must be kept scrupulously clean by repeated washings with boric acid solution. For the nose and throat a dilute Dobell's solution or a 2% boric acid solution is useful.

Scrupulous cleanliness is absolutely necessary during the whole course of the disease and the patient should receive daily baths, taking care not to rupture the vesicles or pustules on the face.

The red light treatment has received considerable attention recently; to be of any value it must be carried out absolutely, making it necessary to have only red glass in all windows and lighting fixtures, and a vestibule with double doors so that not a single ray of white light can enter the room or ward. The red light is very trying on the eyes of both patients and attendants, and the results hardly justify the inconvenience it causes.

The prevention of scarring is practically impossible, but carbolized ointments or lotions should be applied to the face to relieve the intense pruritus.

During the stage of pustulation, stimulants are almost always necessary: the best are whiskey and strychnine; to an adult half an ounce of whiskey and strychnia sulphate gr. $\frac{1}{30}$ can be given every four hours.

The delirium is best treated by bromides and morphia.

The crusts, which are usually ready to come off in twenty-one days, should be completely removed before the patient is discharged; but care must be taken to see that no moist or raw spots exist and that all crusts have been removed from the palms and soles and from under the edges of toe and finger nails.

Complications

Purulent conjunctivitis is frequent and is to be avoided by frequent and careful cleansing of the eyes. When it develops it is to be treated the same as conjunctivitis from any other cause—cold compresses—boric acid washings sufficiently frequent to keep the eyes clean. Solution of argyrol (20%) every four hours or a 1% to 2% sol. of silver nitrate painted over the conjunctiva once or twice a day. If a keratitis should develop the cold compresses should be changed to hot ones—the pupils must be kept dilated with a 1% solution of atropine sulphate. The cleansing with the boric acid solution is to be continued,

and if corneal ulcers develop it may be necessary to cauterize them with tincture of iodine or the galvano cautery.

Laryngitis is frequent and may cause necrosis of the cartilages and be followed by broncho-pneumonia, or may cause edema of the glottis, necessitating tracheotomy; intubation is not satisfactory in these cases. The throat complications are best avoided and treated by spraying or gargling with alkaline solutions or with a hot normal salt solution. In beginning edema of the glottis an ice collar is frequently of service, at other times hot poultices seem to give better results.

Otitis media sometimes occurs. As soon as the drum membrane is red and bulging it should be incised and the ear irrigated with hot boric acid solution sufficiently often to keep it clean. If tenderness develops over the mastoid it should be opened at once, the mastoid cells completely removed and the antrum drained.

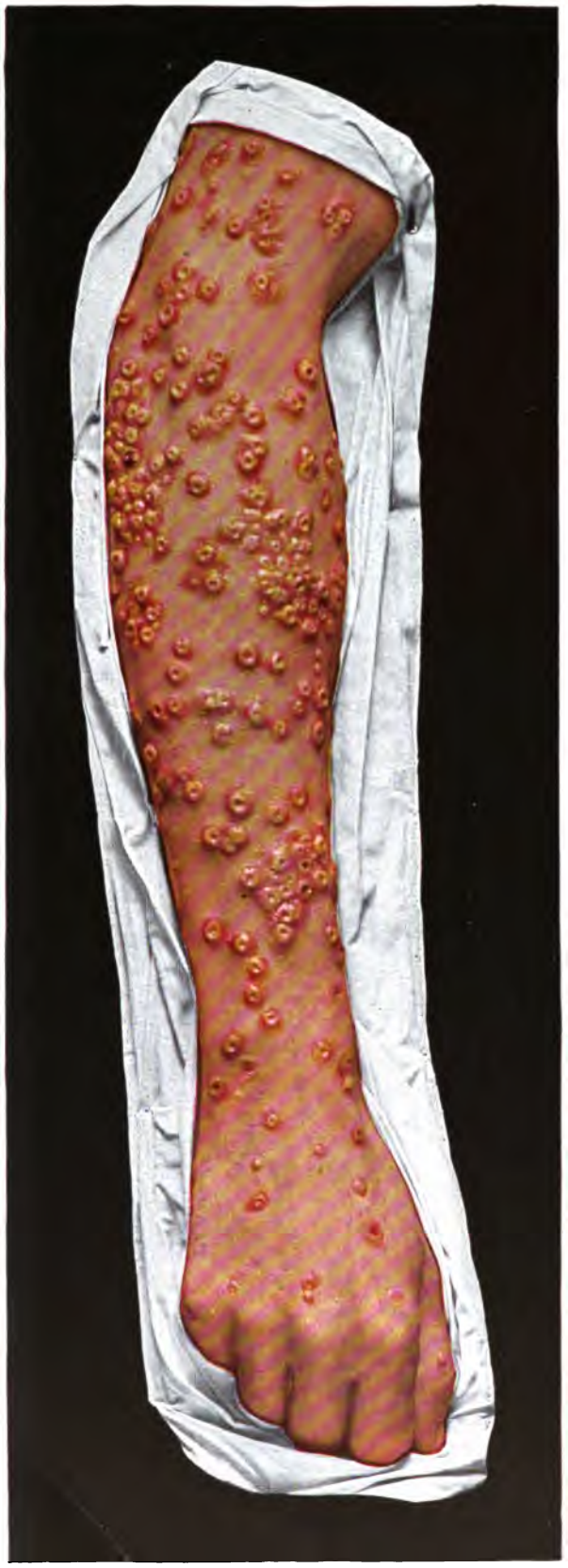
Albuminuria is frequent, but a true nephritis is rare; if it occurs, however, the patient should be given plenty of pure water and placed on a milk diet; diuretics are seldom necessary. If suppression of urine develops, hot packs and high saline irrigations are indicated. In robust patients bleeding is often of considerable benefit.

Multiple abscesses are frequently seen and are at times extremely troublesome. They should be opened as soon as fluctuation is detected, drained, and packed.

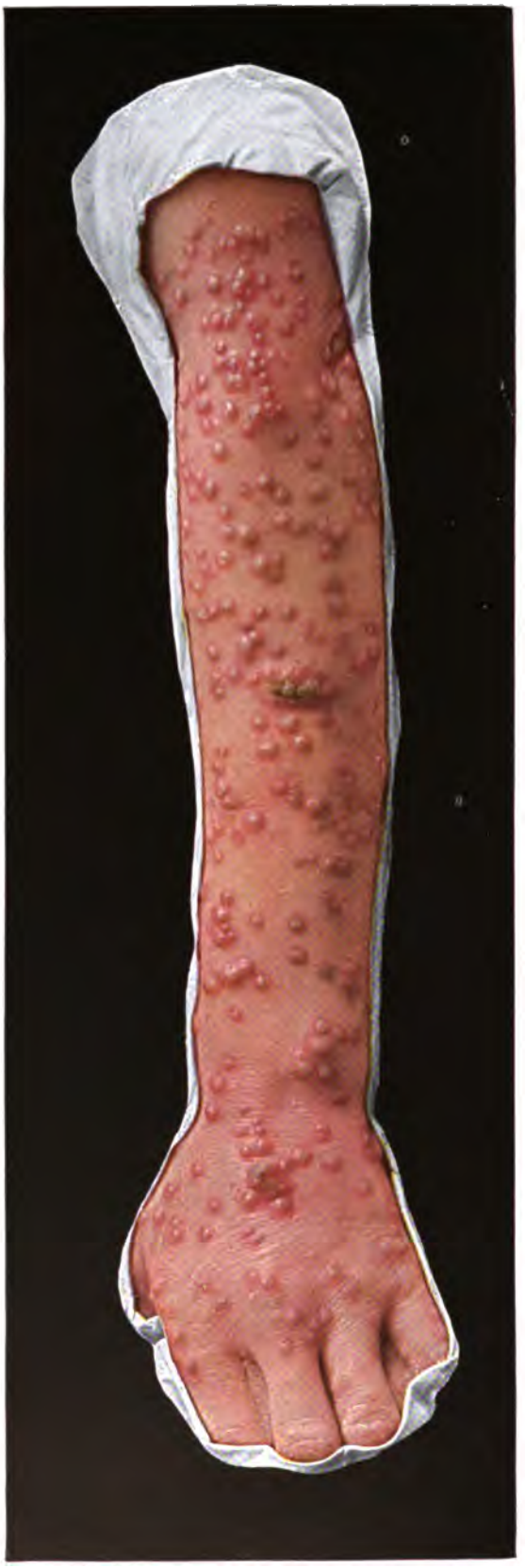
The characteristic pitting that is often such a disfiguring sequelæ to the disease, is always permanent. Treatment is most unsatisfactory. Fibrolysin and thiosinamin are useless and massage and electrical applications of but little, if any, benefit.

Fig. 75. Model by *Kolbow*, of Berlin.

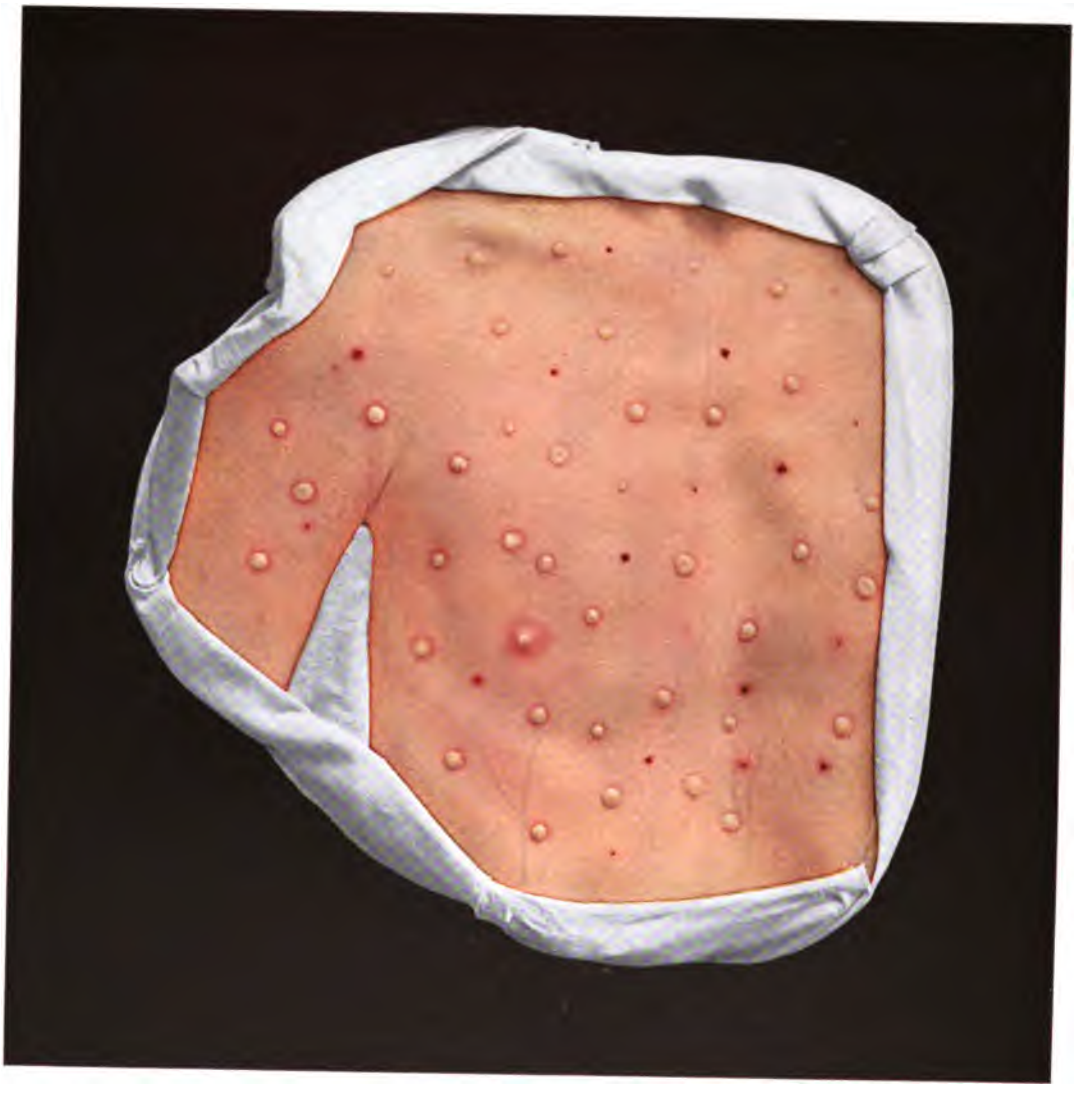
Fig. 76. Model by M. Trammond, Paris (*Jumelin*).



No. 76. Variola.



No. 77. Varicella (in adulto).



No. 78. Varicella.

Varicella

Synonym: Chicken-pox

Plate **48**, Fig. 74; *Plate* **49**, Fig. 77; *Plate* **50**, Fig. 78

This is an acute contagious disease of unknown causation, having a period of incubation of from ten to fifteen days. Although generally regarded as an affection of childhood, its occurrence in adults is not as rare as is commonly supposed.

The prodromal symptoms are of short duration, lasting as a rule but a few hours. They consist of slight fever, chilliness, nausea, with occasional vomiting, pain in the back and legs, and very rarely convulsions.

The eruption generally appears first on the back or chest, although frequently first seen upon the face. It consists of small superficial papules which rapidly become vesicles, and at the end of about thirty-six hours after the first appearance of the rash the contents of these vesicles have become purulent. The vesicles are often ovoid in shape, very superficial, and the skin around them is neither infiltrated nor hyperemic. Occasionally some of the vesicles are found to be umbilicated. During the third and fourth day the lesions dry up and are covered with a brownish crust which soon falls off, and as a rule leaves no scar. Fresh crops of papules continue to develop during the first three days, giving the characteristic picture of intermingled papules, vesicles, pustules and crusts.

The lesions are most numerous on the trunk, but the extremities, face, and scalp are also affected. They are seldom seen on the palms and soles, although they occur here in severe cases. The lips and mucous membranes are sometimes involved as illustrated in Fig. 74. Occasionally the vesicles become very large and develop into bullæ (varicella bullosa) and in certain severe cases cutaneous ecchymoses and bleeding from the mucous membranes occur (varicella hemorrhagica).

In delicate and especially in tubercular children the lesions may become gangrenous and large areas of skin may be destroyed. The

gangrenous spots are usually circular in shape, and as a rule they vary from a quarter to three-quarters of an inch in diameter. They have clear cut vertical edges and appear as though a piece of skin had been removed by a small cutaneous punch. The disease may recur; as many as three attacks having been reported in the same individual.

Diagnosis

This, in typical cases, occurring in children, presents but few difficulties, but in severe cases in adults it is likely to be mistaken for variola or varioloid. The principal differential points are the shortness and comparative mildness of the prodromal symptoms, the relatively larger number of lesions on the trunk, especially on the back, the absence of infiltration in the lesions, their superficial character, the rapid development of the lesions from papules to pustules, their development in crops, and lastly, the intermingling of papules, vesicles, pustules, and crusts on the same area.

Prognosis

This is always favorable even in severe cases in adults.

Treatment

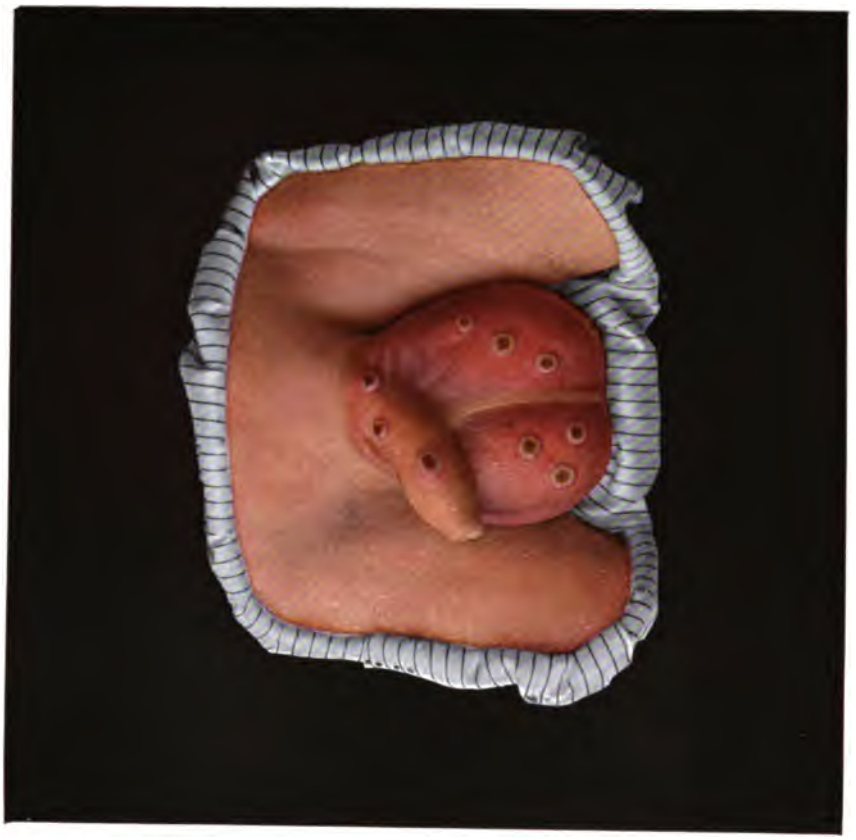
Entirely symptomatic. If there is much elevation of temperature, the patient should be put on liquid diet and kept in bed for a few days. A single good dose of castor oil or repeated small doses of calomel with sodium bicarbonate may be given. If there are many vesicles on the face, efforts should be employed to prevent subsequent pitting.

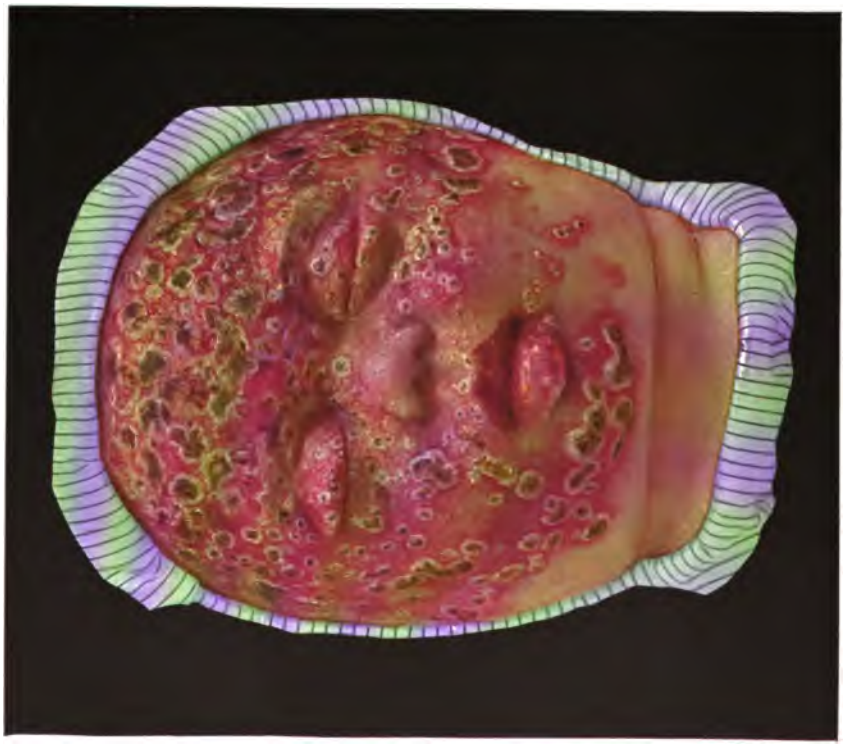
External applications of alcohol may be used for its drying effect on the papules and protective dressings similar to those recommended in variola may be used to prevent the scratching and the secondary infection which is invariably the cause of the pits.

Fig. 74. Model in the Children's Clinic of Geheimrat Heubner in Berlin (*Kolbow*).

Fig. 77. Model in Neisser's Clinic in Breslau (*Kroener*). The patient, forty-three years of age, was taken ill five days previously, with high temperature and severe general symptoms. The case was established as genuine by the fact of the attending physician being attacked by typical chickenpox.

Fig. 78. Model in Lesser's Clinic in Berlin (*Kolbow*).





No. 79. 80. Vaccinia.

Vaccinia

Plate **51,** Figs. 79 and 80

This is the term applied to the exanthem produced by the inoculation of bovine virus. On the second, third or fourth day after vaccination there appears at the site of inoculation a slightly elevated papule, surrounded by a reddish zone. This papule becomes vesicular on the fifth or sixth day, and reaches its maximum size on the eighth day when it is a large, tense, umbilicated vesicle one fourth to one half of an inch in diameter with a hard and prominent margin, filled with a limpid fluid and surrounded by a wide inflammatory areola. Its development is accompanied by general malaise, fever, temperature, 101° to 104° F., which usually lasts four or five days, and swelling and soreness of adjacent lymphatic glands. After the tenth day the vesicle begins to desiccate and by the fourteenth day is covered by a thick, firm crust, which falls off after a period of from one to three weeks, leaving a sharply defined pitted or honeycombed scar. Constitutional symptoms are less severe in children under one month than in those of five or six months; and infants should be vaccinated as soon as nutrition is established, usually in the first three months. As a rule it should be avoided during dentition.

Generalized vaccinia may be either local or constitutional. The former is due to repeated inoculations, the vaccination repeating itself at each point of inoculation. It is seen especially on the face and genitals; and sometimes there is an outbreak of lesions over the whole body, accompanied by severe constitutional symptoms. This type is usually seen in the second or third week. In constitutional generalized vaccinia, vesicles are frequently seen in the neighborhood of the primary sore, but the true generalized vaccinia of systemic origin, with lesions developing on different parts of the body, is rare. The lesions are most numerous on the vaccinated limb; they may be few or many. Each lesion pursues the course of the typical primary vaccination. The vesicles usually develop from the eighth to the tenth day, and they may continue to develop in crops for five or six weeks after vaccina-

tion. Generalized vaccinia has occurred in children following the ingestion of powdered crusts from a vaccination lesion.

Diagnosis

The history of a recent vaccination should render the diagnosis easy even in complicated cases.

Prognosis

Constitutional symptoms associated with generalized vaccinia in children may be very severe, and deaths have been reported, but ordinarily the prognosis is favorable.

Prophylaxis

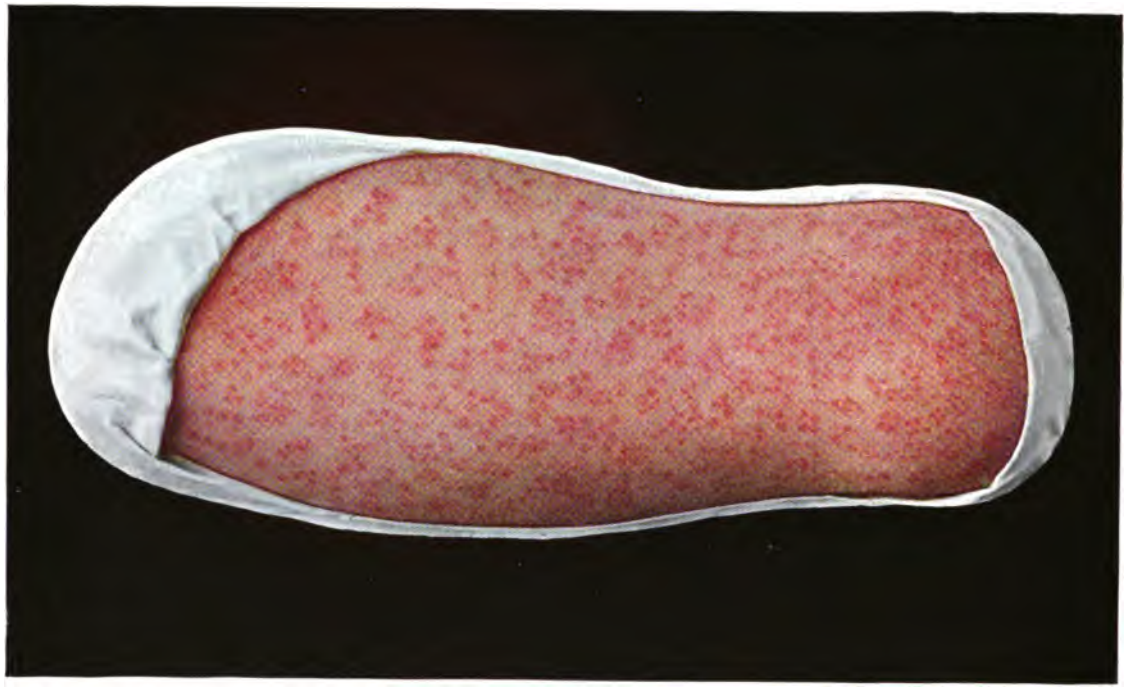
Delicate children and infants in poor health should not be vaccinated until their general condition has been improved and children suffering from itchy skin diseases as eczema, urticaria or scabies should not be vaccinated until the eruption is quite cured. Vaccination pustules should be covered by a dressing or shield so that the child is unable to scratch or pick it.

Treatment

There are seldom any indications for internal medication. The affected areas should be covered with wet compresses. Solutions of boric acid or acetate of aluminum are the ones most generally recommended. As the condition improves a weak ichthyol ointment may be substituted for the wet dressings.

Fig. 79. Model in the K. K. Vaccine Institute in Vienna (*Henning*).

Fig. 80. Model in Finger's Clinic in Vienna (*Henning*).



No. 81. 82. Morbilli.

Morbilli

Synonyms: Measles, Rubeola

Plate **52,** Figs. 81 and 82

This is an acute contagious eruptive fever of unknown causation. The period of incubation is from ten to fourteen days, but may be as long as eighteen or twenty days. The disease begins with catarrhal symptoms—sneezing, coughing, injection of the conjunctiva, lacrymation and rise of temperature to about 103° F.

On the second day usually there appear on the buccal mucous membrane and inside of the lips small irregular spots of a bright red color. In the centre of each spot there is a minute bluish white speck. They lose their characteristic appearance, however, as the eruption on the skin develops. These are the Koplik spots and are of considerable diagnostic value.

As a rule on the fourth day the eruption appears—first on forehead and cheeks in the form of small red maculo-papules which increase in size and spread—the whole body being covered in twenty-four to forty-eight hours. The rash when fully developed consists of roundish, slightly elevated maculo-papules which vary in size from a pinhead to a finger nail, varying in color from a dark red to a purplish hue. They are frequently confluent on both the face and body, and have often been erroneously diagnosed as a mixed infection of scarlatina and morbilli. Hemorrhages into the lesions, especially on the lower part of the abdomen and thighs, are seen fairly frequently but do not add as much to the gravity of the disease as when seen in variola or scarlatina. Where the rash is confluent there is considerable swelling of the skin. The eruption begins to fade after two or three days, leaving brown pigmentation at the site of the lesions, especially on the trunk and limbs.

The temperature, which reaches its greatest height with the full development of the rash, falls rapidly with the fading of the rash, together with a subsidence of the catarrhal symptoms.

Rubella

Synonyms: German measles, Rötheln

Plate **53**, Fig. 83

Rubella is an acute contagious eruptive fever with an incubation period of from ten to twenty-one days. The period of invasion is very short, usually lasting only a few hours; and in many cases no prodromal symptoms at all occur. When they are present they consist of malaise, slight fever, and very mild catarrhal symptoms; but there may, very rarely, be vomiting, convulsions, delirium, epistaxis, rigors and headache.

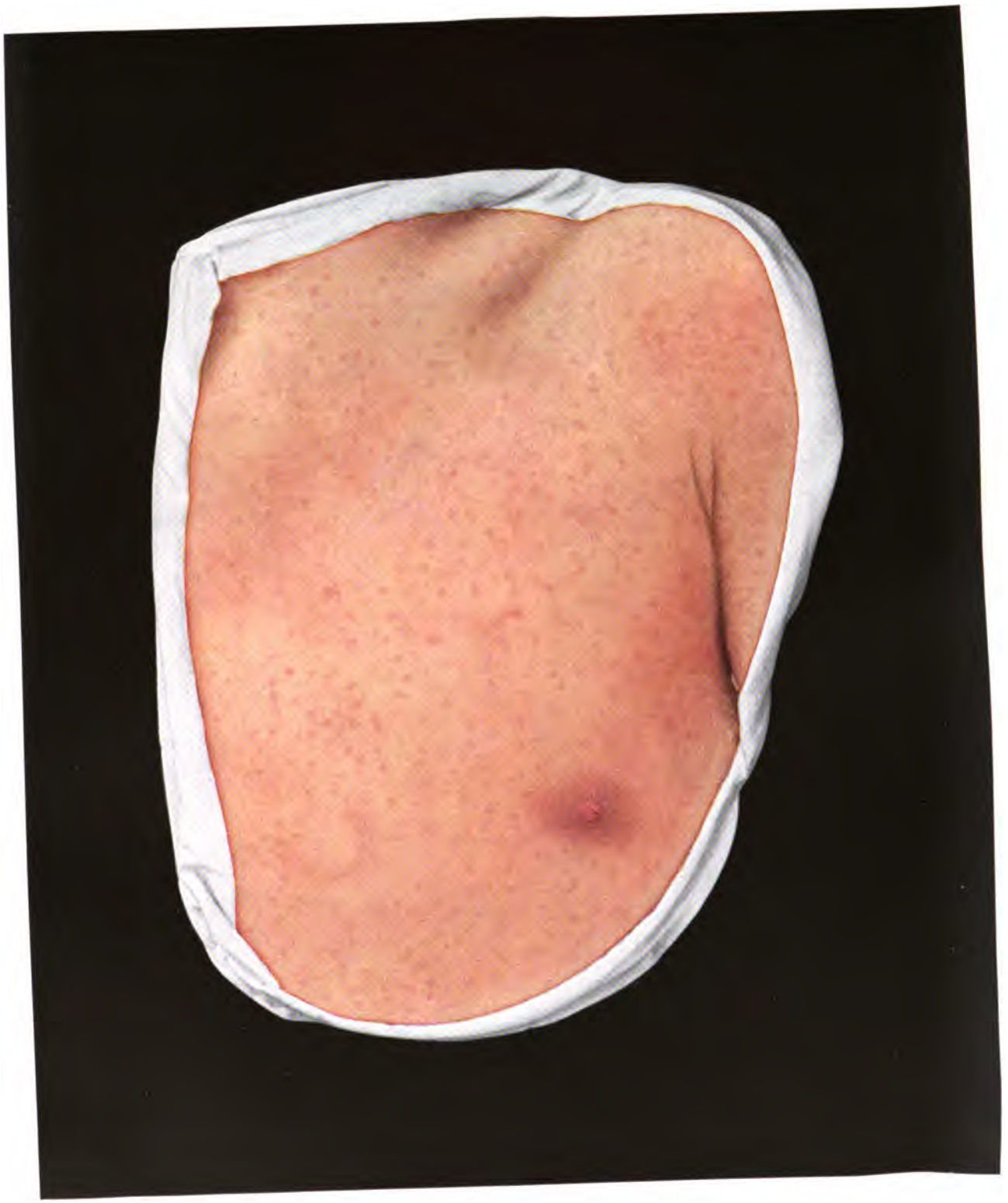
The eruption appears first on the face and, spreading rapidly, covers the whole body in less than a day. Occasionally it comes out first on the back, or the whole body may be covered almost at once. In many cases the whole body is not covered, but the rash is seen most constantly on the face.

The character of the eruption is quite variable. It is most frequently composed of small pinkish maculo-papules from a pinhead to a pea in size, frequently confluent on the face, forming large irregular blotches. On the trunk it is usually discrete, but there may be a uniform red blush, still the characteristic maculo-papules can be found on the forehead, wrists or fingers. The degree of elevation of the lesions is variable from being almost imperceptible to being so marked as to give the skin a distinctly shotty feel. The color also may vary from pink to a dark red and very rarely the rash may be hemorrhagic.

Minute bright red points may be seen on the uvula and soft palate during the first twenty-four hours.

The temperature is highest with the full development of the rash, and is 101° F. or less, but in the very rare severe cases it may be 103° F.

The rash is generally of two or three days' duration and is usually accompanied by moderate itching. The post cervical glands are always enlarged. They subside slowly without suppuration.



No. 83. Rubeola.

Desquamation may be entirely wanting but usually occurs in the form of fine scales.

Diagnosis

Rubella is diagnosed from morbilli by its longer period of incubation—shorter period of invasion—absence of Koplik's spots and its milder catarrhal and constitutional symptoms.

From scarlatina, by the absence of severe prodromal symptoms—the absence of angina—the presence of the typical maculo-papules on the forehead, wrists or fingers—and its longer period of incubation.

In all cases, unless the disease is epidemic, it is not safe to make the diagnosis of rubella until the case has been under observation for some time.

Treatment

This is entirely symptomatic. A dose of calomel or castor oil at the beginning of the attack is practically all the medication required. The patient should be isolated for about a week.

Fig 88. Model in Neisser's Clinic in Breslau (*Kroener*).

Scarlatina

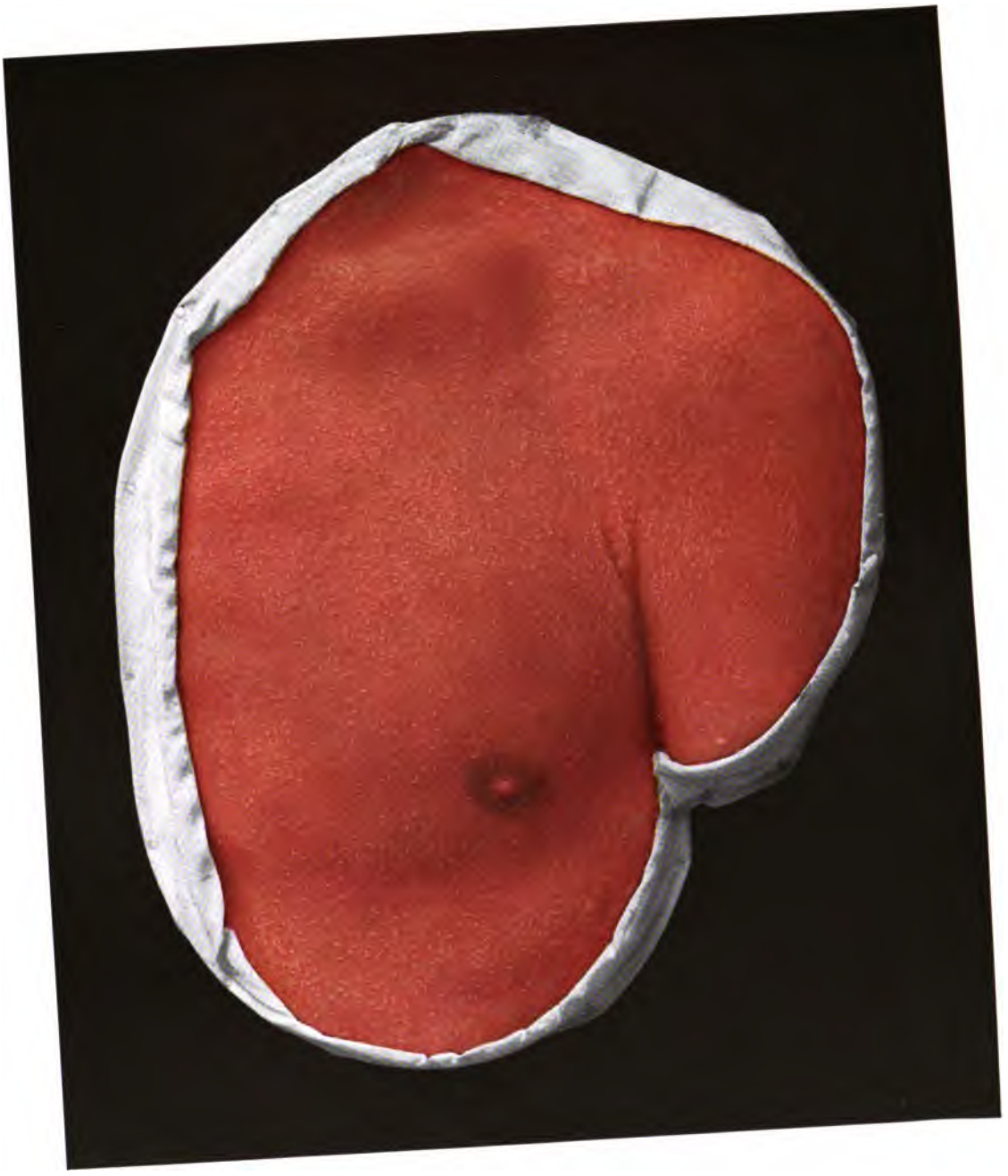
Synonym: Scarlet fever

Plate **54,** Fig. 84; *Plate* **55,** Fig. 85

Scarlatina is an acute contagious disease of unknown causation. It has been claimed that a streptococcus is the causative agent, but while this is associated with the complications, it is probably but a secondary or accompanying infection. The disease most frequently attacks children between two and ten years of age. Adults are less susceptible than children. Scarlatina is not as contagious as measles. Frequently only one child in a family where there are several children will contract the disease, while with measles practically all children exposed, unless protected by a previous attack, contract the disease.

The period of incubation is usually from two to six days, but it may be as short as six hours or as long as two weeks; over seven days, however, is extremely rare. The onset is sudden, with a rise of temperature of from 101° to 105° F., vomiting, sore throat and frequently in children, convulsions and delirium, the intensity of the symptoms varying with the severity of the attack. The vomiting is frequently persistent and without nausea. The throat symptoms may be so mild that they are only detected by examination, but in most cases there is a uniform redness of the whole pharynx, and small red points are seen on the hard palate and the patient complains of soreness and pain on swallowing. The tip and edges of the tongue are red and the centre is covered with a thick fur, through which the enlarged papillæ project, giving it the so-called strawberry appearance. In severe cases the tonsils and fauces are markedly swollen and may be covered by a pseudo-membrane, which may extend from the posterior wall into the mouth or up into the nostrils and occasionally may involve the larynx, trachea and bronchi. The cervical glands are frequently enlarged and tender.

The eruption usually appears on the second day, but it may develop within twelve hours, or it may be delayed until the fourth or fifth day.



No. 84. Scarlatina.

It appears first on the neck and chest and spreads rapidly, involving the entire skin, in from four to twenty-four hours. It has a vivid scarlet hue and is composed of innumerable minute red points upon an erythematous ground. Although seen upon the face there is a peculiar pallor around the mouth. Occasionally all of the skin is not involved, the rash occurring in patches, or the rash may not develop on the face, or it may be present only on certain parts, usually the groins, axillæ, flexures of the elbows, or upon the buttocks and posterior surface of the thighs. In some cases it is so slight and evanescent that it entirely escapes observation, or it may be entirely absent both in mild cases and in those with severe angina, and even in malignant cases it may never develop. Miliary vesicles are frequently seen, especially upon the chest and abdomen. Petechiæ are occasionally seen and in malignant cases they become very extensive. At the height of the eruption, the skin of the face and hands may be considerably swollen. Pruritus is variable, and at times may be quite marked. The rash may last from a few hours to about six days.

The temperature is highest with the full development of the rash and in fatal cases may rise to 108° or even 109° F. The pulse varies from 120 to 150 or higher. In favorable cases it continues high for two to five days and falls by lysis. The vomiting usually stops with the development of the rash. The urine shows febrile characters and albuminuria is frequent. The tongue desquamates in a few days and is clean by the time the rash begins to fade. The desquamation of the skin is characteristic. It begins after the rash has faded, usually on the eighth to twelfth day, but may be delayed until the twenty-first day. It begins on the neck and chest and is flaky in character. On the hands and feet, where the epidermis is thickest, it is finished last, and here the flakes are quite large, frequently the epidermis being shed almost entire in a glovelike cast. It is usually completed at the end of thirty-five days, but may continue for seven or eight weeks.

Diagnosis

Typical cases present no difficulty; but in the mild and atypical ones the diagnosis is extremely difficult and at times impossible until the characteristic desquamation appears. The principal diagnostic symptoms are the vomiting associated with sore throat, and a punctate rash on the hard palate. The pulse-temperature ratio in mild cases is also a valuable aid. The pulse is practically always increased out of proportion to the temperature. The groins, axillæ and anterior surfaces of elbows should be carefully examined for a punctate rash.

Erysipelas

Synonym: St. Anthony's Fire

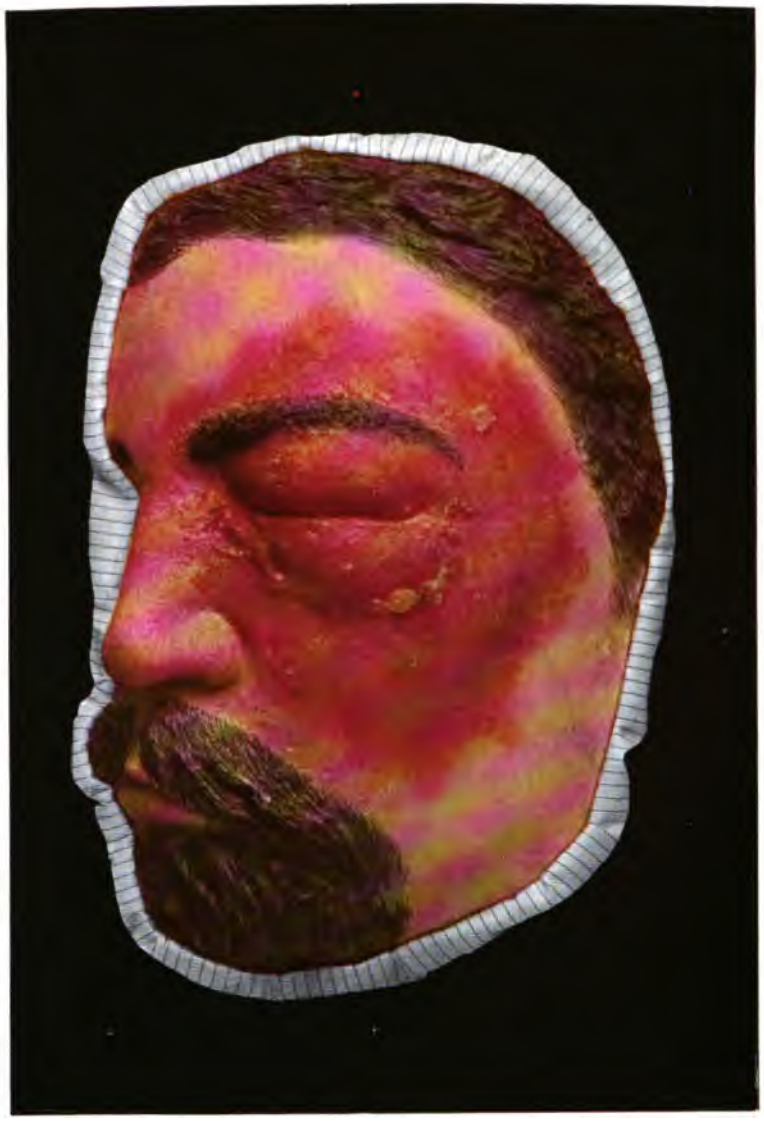
Plate **55,** Fig. 86

Erysipelas is an acute inflammatory disease of the skin and subcutaneous tissues caused by the streptococcus (erysipelatous) pyogenes. After prodromal symptoms of from four to forty-eight hours' duration, consisting of malaise, chills, moderate fever and occasionally anorexia and vomiting, there appear at the site of infection one or more erythematous spots. These spots rapidly increase in size, forming a large, tense, red, shining patch, the temperature of which is higher than that of the normal skin. Its outline is usually irregular, but it is very sharply defined and its border is raised. Its size may be limited to a patch only a few inches in diameter, or it may involve large areas of the skin. As the process develops the color becomes a dark, angry red, the swelling increases and vesicles and bullæ, filled with a clear yellow serum, may develop. The amount of swelling depends on the intensity of the inflammatory process and on the structure of the subcutaneous tissues; where there is much loose areolar tissue, it is often very considerable.

Subjective symptoms are moderate pruritus, burning, tenderness and more or less pain. The rash reaches its height in about a week, remains stationary for a day or so and gradually subsides, together with a gradual improvement in the constitutional symptoms, which have consisted of those of an acute febrile disturbance from toxæmia—temperature 103° to 105° F., headache, pain in the limbs, loss of appetite, coated tongue and nausea and vomiting, etc.

The whole process may be very mild—the skin showing only an erythematous area with very little swelling and no vesicles or bullæ, accompanied by mild constitutional symptoms. Occasionally in severe cases the vesicles and bullæ may be hemorrhagic. In some people who are peculiarly susceptible, erysipelas may recur frequently for a long period of time and by obstruction of the lymphatics lead to elephan-

No. 85. Scarlatina.



No. 86. Erysipelas.

tiasis. The hair is usually lost after erysipelas of the head and the alopecia resembles that of syphilis.

Complications

Secondary infection by staphylococci may cause extensive suppurative cellulitis. Superficial abscesses occur frequently during convalescence.

The most serious complications arise from the spreading of the disease to the mucous membrane of nose, mouth, pharynx, larynx, rectum or vagina.

Prognosis

This should always be guarded. In extensive cases in the very young or in those debilitated by alcoholic excesses and exposure, the outlook is not favorable. A sudden rise of the temperature, after it has once subsided, means either another outbreak, or the development of a serious complication.

Diagnosis

An erythematous eczema is not accompanied by so much swelling, and never has the characteristic shining appearance of erysipelas. The line of demarcation between the affected and unaffected portions of the skin is usually ill defined in eczema. When occurring upon the face, the scalp is usually spared, while an erysipelas tends to involve the scalp.

Erysipeloid of Rosenbach, which as a rule occurs only on the fingers and hands, is characterized by much milder local reaction and the almost entire absence of constitutional symptoms.

From the so-called pseudo-erysipelas that is secondary to intranasal inflammation erysipelas is distinguished by the severity of its constitutional symptoms, its tendency to spread widely beyond the nose and its adjacent tissues and the absence of history of a long continued nasal trouble.

Angioneurotic edema does not present the glazed shiny surface of erysipelas and is not accompanied by symptoms of toxemia. It occurs in successive and recurrent attacks and is often accompanied by rheumatoid pains.

Treatment

Rest in bed during the whole course of the disease. Isolation as in scarlatina or measles. The diet should be liquid and supporting.

Stimulants are frequently necessary. It has long been the custom to prescribe large and frequently repeated doses of the tincture of iron, but it is doubtful if this treatment is of much value. Quinia and antipyrine are sometimes of service in lowering the general temperature. The treatment by antistreptococcus serums has not been very satisfactory in practice, although theoretically it seemed quite promising. The affected areas should be covered with wet dressings of alcohol, aluminum acetate, lead and opium wash, or ichthyol in a twenty to fifty per cent. aqueous solution. A favorite application formerly much used at the New York City Hospital was the saturated solution of magnesium sulphate. Sabouraud[1] recommends colloidal silver as a local application.

[1] *Sabouraud:* Regional Dermatology. Rebman Company, 141-145 West Thirty-sixth Street, New York. New Edition, $8.00.

Fig. 86. Model in Riehl's Clinic in Vienna (*Henning*).

No. 88. Leukoplakia linguae.

No. 87. Exfoliatio areata linguae.

Exfoliatio Areata Linguae

Synonyms: Pityriasis linguæ, Transitory benign plaques of the tongue, Geographical tongue.

Plate **56,** FIG. 87

This affection is a peculiar arrangement of the normal coating of the tongue which has received various designations and has been explained in many ways. It has been looked upon in some quarters as a glossitis, even of an ulcerated kind; in others as a simple desquamation or exfoliation. It has been regarded as a manifestation of syphilis. Since it has been seen in nurslings, several causal factors are thereby eliminated, as for example dependence on dentition.

The pediatrist Czerny has perhaps thrown some light upon the condition by making it an expression of the exudative diathesis. This makes it hereditary, at least in its predisposition. It may also be looked upon as a permanent peculiarity dependent for its manifestations on accidents—dietetic peculiarities. It often improves under a strict, bland diet. The geographical tongue, in other words, is made much worse by the same dietetic factors which cause acute indigestion and diarrhea. But aside from the exudative diathesis and improper or excessive eating, numerous other factors may be isolated, as neuropathy, climate, mechanical irritation.

The appearance of a geographical tongue is quite characteristic. The tongue is the seat of plaques of a lively red color, varying much in size and shape. They are chiefly rounded, however, and very slightly prominent. The papillæ in these areas appear enlarged. At the border of the plaques is a narrow, gray, stippled areola. In some instances the border has a distinct double contour. The stippling is simply the filiform papillæ, rendered conspicuous because broadened and surmounted by thickened epidermis. These papillæ are also uniformly enlarged in other parts of the tongue, which present thereby a grain leather appearance. Although the condition is spoken of as a permanent one, individual plaques show great volatility. Even be-

fore the end of thirty-six hours they may have run through their cycle and vanished, as new plaques appear. The process has therefore been likened to the alternation of patterns in a kaleidoscope.

Diagnosis

The affection has no doubt been confounded with Möller's glossitis and mucous patches of syphilis. The greatest confusion would be likely to arise if some other affection acted as an exciting cause to geographical tongue—syphilis, for example.

Treatment

There is no treatment to be actually directed against this condition per se. The individual may be treated to restore him to physiologic equilibrium, and the various local applications used in mild stomatitis seem to be indicated on general principles.

Fig. 87. Model in St. Louis Hospital in Paris, No. 2235 (*Baretta*). Meureman and Ramond's case.

Leukoplakia

Plate **56**, Fig. 88

Clinically, leukoplakia is represented by smooth, milk-white spots which at first are of a pale rose tint and not well differentiated from the outlying mucosa. They become pure white, and sometimes eventually bluish or pearly. Eventually they become sharply differentiated at the borders, the more so because often surrounded by a bright-red areola. The thickened epidermis, becoming harder with time, is eventually detached, and when they come away leave a shallow or deep fissure. That an ulcer does not develop is due to the peculiar narrow shape of the original lesion. The white color may become dark—yellowish or brownish—from minute hemorrhages. Some of the lesions have almost a cartilaginous hardness and thickness. The mucous membrane beneath these thickenings is rich in blood-vessels, which are permeated with leucocytes. The papillæ are elongated and increased in number.

In a typical case we encounter a number of lesions on the anterior portion of the dorsum of the tongue; and if the case is chronic we may see side by side spots in all stages of development with fissures left by former spots. The tip and borders are involved in the affected area. The most favorite locality is the inner aspect of the cheeks, where a triangular area is implicated. Fissures seem to be almost peculiar to the tongue.

An extraordinary feature, when we bear in mind the amount of discomfort caused by various kinds of sore mouth, is the relative absence of subjective symptoms in a large percentage of cases. It often happens that the presence of leukoplakia is discovered by mere accident. The subjective sensations may consist of nothing beyond a numb or foreign body sensation—the latter due in part to the thickened areas in the act of separation.

Etiology

The affection is extremely chronic and confined almost entirely to males, who are seldom attacked before the age of forty. It ap-

pears to result from the coöperation of a number of causes. The most common association is antecedent syphilis and tobacco-smoking, but these only furnish a predisposition.

Diagnosis

There is a notable resemblance to the mucous patches of syphilis, which are first white and then succeeded by raw surfaces. As a rule, leukoplakia spots are much more numerous and prominent. Mucous patches are usually seen at the sides, tip and under surface of the tongue. They come and go within a short interval, while leukoplakia is extremely chronic, lasting for years, and having little tendency to recovery. The fissures which result might be confused with later syphilitic disease. The crucial test is the result of treatment, which is principally negative in leukoplakia.

Prognosis

This is not particularly good for recovery and the affection must be looked upon as a serious one when we consider that it is a not uncommon forerunner of cancer.

Treatment

All sources of irritation must be removed. Sharp teeth which rub against lesions should be filed down and all carious teeth either filled or extracted. Tobacco and all pungent food articles and the taking of hot foods and drinks must be proscribed. For inveterate smokers a very moderate indulgence may be permitted. Mouth washes must be used freely and may be alternated. Hydrogen peroxide seems to be the best suited, and any mild astringent solution may be employed. For actual treatment to produce permanent results various mild caustics are used, the strength to be gradually increased. The very number of these in use goes to show the lack of a dependable remedy—silver nitrate, chromic acid, lactic acid, salicylic acid, etc., etc. Occasionally cases are benefited by injections of salvarsan. Some surgeons recommend the removal of the entire epithelial coating with curette or cautery, but it is not certain that the results warrant such measures.

Fig. 88. Model in St. Louis Hospital in Paris, No. 1573 (*Baretta*). Fournier's case.